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FM 1-5

DEPARTMENT OF THE ARMY FIELD MANUAL

ARMY AVIATION ORGANIZATIONS AND EMPLOYMENT



HEADQUARTERS, DEPARTMENT OF THE ARMY
MAY 1959

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DEPARTMENT OF THE ARMY
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CHAPTER 18

AVIATION SECTION, AIRBORNE, ARMORED, INFANTRY, AND MECHANIZED DIVISION BRIGADES

Section I. GENERAL

18-1. Purpose

This chapter provides guidance for commanders, staff officers, and other personnel in the organization and employment of the division organic brigade aviation section.

18-2. Scope

This chapter covers the organization, employment, capabilities and limitations, and administration of the brigade aviation section in sufficient detail to provide commanders and staff officers with the necessary guidelines for day-to-day operation.

18-3. Mission

The aviation section provides Army aviation support to the brigade headquarters and assigned or attached units.

Section II. ORGANIZATION

18-4. Composition

The aviation section consists of a section commander, rotary wing aviators, a maintenance supervisor, helicopter crew chiefs, and a petroleum storage specialist (TOE 7-42E).

18-5. Assignment

One aviation section is organic to each headquarters and headquarters company, infantry division brigade, mechanized division brigade, airborne division brigade, and armored division brigade.

18-6. Capabilities and Limitations

a. Capabilities. With its observation helicopters, the section

provides air vehicles to the brigade headquarters and assigned or attached units primarily for command and control, observation, and reconnaissance.

b. Limitations. The effectiveness of the unit may be reduced during periods of darkness or adverse weather conditions.

18-7. Planning and Coordination

a. Tactical planning and logistical considerations vary with the nature of operations. Use of organic air vehicles in support of the tactical plan is based upon priorities established by the brigade commander.

b. The aviation section commander establishes and maintains liaison with the supported unit(s), division aviation battalion, adjacent units, and supporting maintenance units. Coordination for use of maintenance and refueling facilities is of utmost concern.

c. The section leader disseminates instructions to members of the section to insure that each member is familiar with the plan of operation and anything that may affect the operation.

Section III. EMPLOYMENT AND OPERATIONS

18-8. Employment

a. Operational Concept. The aviation section air vehicles are employed for those aviation tasks which the brigade commander considers most important to accomplishment of his mission. Operational missions for the section are assigned by the brigade S3, through the section commander, based upon priorities and guidance established by the commander. The air vehicles are employed primarily for command and control, observation, and reconnaissance by the commanders and staffs. Further details are contained in FM's 1-15, 1-60, 1-100, 57-35, and 61-100; and in TM 57-210.

b. Location. During tactical operations, the section operates from a base of operations in the vicinity of brigade trains. This section base of operations consists of a helicopter pad and a small maintenance area.

c. Displacement. During displacement, the ground elements of the section move with the brigade headquarters and headquarters company. Air vehicles and aviators displace with supported units. Nonflyable air vehicles remain in place with sufficient maintenance personnel to repair, evacuate, or destroy them.

18-9. Duties of Personnel

a. Section Commander. The section commander is the brigade aviation officer operating under the staff supervision of the brigade S3. He advises the commander and staff on matters relating to the employment of Army aviation, organic or supporting. He is responsible for the training, discipline, control, and employment of the section.

b. Rotary Wing Aviators. Rotary wing aviators pilot the assigned helicopters and coordinate with supported unit commanders or staff officers on matters of communications, security, and certain logistical support.

c. Maintenance Supervisor. The maintenance supervisor acts as section sergeant for the aviation section. He schedules and coordinates section maintenance and supervises the work of crew chiefs on assigned aircraft. He normally remains at the section base of operations.

d. Helicopter Crew Chiefs. Crew chiefs perform first echelon and limited second echelon maintenance and insure POL resupply of their helicopters. They also perform organizational maintenance, within individual skill levels and tool availability, on the armament subsystems mounted on organic helicopters. The crew chiefs may be directed to accompany their assigned helicopters when supporting a subordinate unit of the brigade. Each crew chief is trained to operate the section radios. One of the crew chiefs drives the section $\frac{3}{4}$ -ton truck.

e. Petroleum Storage Specialist. The petroleum storage specialist drives the organic tanker or truck and is responsible for POL resupply for section air vehicles. He assists the maintenance supervisor in maintaining technical publications and records pertinent to air vehicles and other section equipment.

18-10. Communications

a. When time permits, the brigade communications platoon installs telephone lines to the aviation section.

b. One radio, installed in the $\frac{1}{4}$ -ton truck, is used to monitor the division warning net (AM) and one is used to communicate in the brigade command and aviation section nets (FM). The radio installed in the $\frac{3}{4}$ -ton truck permits the maintenance supervisor to enter the aviation section net. Air vehicle radios can net with any tactical FM radio.

18-11. Maintenance Support

a. Maintenance is performed by the crew chief to the maximum extent practicable to insure maximum availability of air vehicles.

b. Maintenance beyond the capability of the crew chief is performed by mobile repair teams of the forward support platoon of the aircraft maintenance company. Recovery and evacuation of disabled air vehicles is accomplished by the aircraft maintenance company. Replacement air vehicles are provided in accordance with priorities established by the major commander concerned.

c. Air vehicles requiring maintenance which is beyond the capability of the aviation section are repaired on-site by mobile repair teams of the forward support platoon of the aircraft maintenance company. Air vehicles requiring extensive repair are made safe for one-time flight to the main support platoon of the aircraft maintenance company. If this is not possible, the air vehicles are evacuated by the aircraft maintenance company.

18-12. Security

a. The section base of operations is included in the brigade trains security plan. Air vehicles with the brigade headquarters or in support of attached units are included in the security plan of the supported headquarters.

b. Section personnel perform security duties as required.

Section IV. ADMINISTRATION AND TRAINING

18-13. Personnel

Personnel and other administrative functions are provided by the brigade headquarters and headquarters company.

18-14. Supply

a. Resupply for all classes of supply for the aviation section is accomplished through normal supply procedures and, except for Class IIIA, is provided by the brigade headquarters and headquarters company. The aircraft maintenance company provides air vehicle repair parts support on an emergency basis only. Requests are submitted directly to the mobile aircraft repair team. When air vehicles and personnel are attached to a subordinate unit, that unit provides supplies to the maximum extent practicable.

b. Air vehicle refueling is accomplished at the aviation section base of operations or other aviation refueling facilities as appro-

priate. Class IIIA for the section is delivered to the base of operations by division or division support element. The 1,200-gallon tank truck organic to the infantry, mechanized, and armor brigades may be used to pick up gasoline from the division support element when unit distribution is not practicable. In the airborne brigade, Class IIIA must be delivered in drums, cans, or other packaged means compatible with air delivery.

18-15. Training

a. Individual and Unit Training. Personnel assigned to the brigade aviation section normally will have completed a course of instruction at a service school. The section commander conducts or supervises on-the-job training of his personnel, including advanced individual training. As the brigade aviation officer, the section commander assists and advises the brigade S3 in organizing programs to indoctrinate commanders and staffs in the proper use of the aviation section in support of the brigade mission.

b. Training with Supported Units. Air vehicles and personnel designated to support attached units are integrated into the supported unit training program as appropriate.

CHAPTER 19
AVIATION SECTION
AIRBORNE, ARMORED, INFANTRY,
AND MECHANIZED DIVISION ARTILLERY

Section I. GENERAL

19-1. Purpose

This chapter is a guide for commanders and staff concerned with the organization, employment, and training of a division artillery aviation section.

19-2. Scope

The chapter provides information concerning the organization, employment, operations, administration, and training of the aviation section in sufficient detail to give the division artillery commander and staff the necessary guidelines for day-to-day operations.

19-3. Mission

The mission of the aviation section is to provide immediately responsive aviation support to the division artillery commander, staff, and division artillery units.

Section II. ORGANIZATION

19-4. Composition

The composition of the aviation section organic to the division artillery headquarters and headquarters battery, airborne, armor, infantry, and mechanized division artilleries is as shown below:

Artillery Aviation Section
Airborne, Armored, Infantry, and Mechanized Division Artilleries

Duty position	MOS		Grade	Full strength
Section commander	2518	72518*	Major	1**
Rotary wing aviator	1981	71981*	Lt	10
Section chief	67560	67567*	E-6	1
Crew chief	67510	67517*	E-5	10
Aviation electronic equipment mechanic	28410	28417*	E-4	1
Petroleum distribution specialist	55210	55210*	E-3	1
Radio telephone operator	67000	67007*	E-3	1

* Airborne artillery, aviation section MOS.

** Division artillery aviation officer not included in strength of aviation section.

19-5. Assignment

The aviation section is assigned to headquarters and headquarters battery of the armored, infantry, and mechanized division artilleries (TOE 6-302E) and the airborne division artillery (TOE 6-201E).

19-6. Capabilities and Limitations

a. Capabilities. The aviation section provides air mobility for command and staff, aerial observation, target acquisition, and artillery fire adjustment. The section also performs CBR operations, chiefly aiding in aerial radiological survey. It performs other aviation missions within the capabilities of the type aircraft assigned to the section.

b. Limitations. The effectiveness of the section may be reduced during periods of darkness and adverse weather conditions. The extent of the limitation depends upon the type mission to be flown, the environment of operation, the availability of navigational facilities and/or pathfinder support, and the type of adverse weather.

19-7. Planning and Coordination

a. Planning and coordination for the aviation section is the responsibility of the division artillery aviation officer. The aviation officer is a special staff officer at division artillery headquarters who advises the division artillery commander and staff on the technical and tactical aspects of aviation operations. He also commands the aviation section.

b. To maximize the effect of aviation support, the aviation officer exercises close and continuous coordination with the division artillery S2 and S3, the artillery battalion commanders, and the division aviation battalion.

c. Coordination with the division aviation battalion is accomplished to—

- (1) Prevent duplication of effort of observation missions.
- (2) Secure maintenance assistance to be performed on organic air vehicles at division artillery level.
- (3) Secure additional aviation support when required by division artillery.

Section III. EMPLOYMENT AND OPERATIONS

19-8. Employment

a. The section should operate from the vicinity of the division artillery fire direction center to provide maximum aviation support.

b. The airstrip should be located within the defensive perimeter of the division artillery headquarters and headquarters battery.

c. The section normally will be employed under the control of the division artillery aviation officer.

d. Elements of the section can be attached to or placed in support of artillery battalions.

e. Additional aviation support is requested through the Army aviation element (AAE) at the division tactical operations center (DTC), or through command channels.

19-9. Duties of Personnel

a. *Section Commander.* The division artillery aviation officer commands the aviation section. He leads the section and maintains its discipline, welfare, and combat proficiency. He insures that the section is properly and rapidly employed when given a mission.

b. *Rotary Wing Aviators.* Rotary wing aviators, in addition to operating assigned air vehicles, coordinate with supported unit commanders or staff officers on matters of communications, security, and certain logistical support.

c. *Section Chief.* The section chief acts as maintenance supervisor. He schedules and coordinates section maintenance and

supervises the work of the crew chiefs on their assigned air vehicles. He normally remains at the section base of operations.

d. Crew Chiefs. Crew chiefs perform organizational maintenance within individual skill levels and tool availability. They refuel and service organic and transient air vehicles. They are trained to operate the section radios. The crew chief may be directed to accompany his aircraft when it is supporting a subordinate unit of the division artillery. One crew chief is also assigned as driver of one of the section's $\frac{3}{4}$ -ton trucks.

e. Aviation Electronic Equipment Mechanic. The aviation electronic equipment mechanic performs organizational maintenance of aviation electronic equipment organic to the section.

f. Petroleum Distribution Specialist. The petroleum distribution specialist drives the organic tanker or truck and is responsible for POL resupply for the section air vehicles. He assists the maintenance supervisor in maintaining technical publications and records pertinent to the air vehicles and other equipment of the section.

g. Radio Telephone Operator. The radio telephone operator maintains and operates the telephone equipment and truck-mounted radios assigned to the section. He is also assigned as a light truck driver.

19-10. Communications

a. Wire communications are provided through field wire installed by the division artillery headquarters battery communications platoon or through the area communications system.

b. Air vehicles and ground elements of the section maintain radio communications with division artillery headquarters by operating in the division artillery command/fire direction net (FM). When section air vehicles operate directly with one of the artillery battalions, the airborne radio is switched to one of the radio frequencies of the artillery battalion, as directed.

19-11. Maintenance Support

Maintenance beyond the capability of the crew chief is performed by mobile repair teams of the forward support platoon, transportation aircraft maintenance company, maintenance battalion. If extensive maintenance is required, the air vehicle is made safe for one-time flight to the main support platoon of the transportation aircraft maintenance company. If this cannot be done, the main support platoon of the transportation aircraft maintenance

nance company performs recovery and evacuation of the air vehicles. Replacement of evacuated air vehicles is made in accordance with the policies established by the major commander concerned.

19-12. Security

The section commander is responsible for the collective security of the section. In the selection of an airstrip, he gives consideration to natural cover for concealment of dispersed parking and maintenance areas. The selected airstrip site should be located in an area which is defiladed from enemy fire and ground observation. Security measures must always be coordinated with the nearest unit. The section commander also formulates and supervises the execution of the airstrip security plan.

Section IV. ADMINISTRATION AND TRAINING

19-13. Personnel

Administration support and personnel actions and assignments are accomplished by the administrative and logistics section of the division artillery headquarters and headquarters battery.

19-14. Supply

a. Resupply of all classes of supply for the aviation section is accomplished through normal resupply procedures and, except for Class IIIA, is provided by the division artillery headquarters and headquarters battery. When the aviation section personnel and equipment operate with a subordinate element, that element provides resupply within its capabilities, including at least Class I and V supplies. The air vehicles normally return to the aviation section base of operations or another aviation facility for refueling.

b. The aircraft maintenance company provides air vehicle repair parts support on an emergency basis only. Request for emergency parts support is submitted by the section chief to the supporting mobile air vehicle repair team by the most expeditious means. For other than emergency support, the section chief forwards parts requirements to the supply section of the division artillery headquarters and headquarters battery. The supply section notifies the transportation aircraft maintenance company of requirements.

19-15. Training

a. Individual and Unit Training.

(1) The majority of personnel assigned to the aviation sec-

tion are specialists who have received Army service school training. The section will conduct on-the-job training to increase the level of individual training. This can be accomplished by close command supervision and proper assignment of personnel within their MOS specialties.

- (2) Training associated with aviation must emphasize the many safety aspects involved. For maximum effectiveness, it must be as realistic and practical as possible.
- (3) Unit training is closely related to the individual training program. The skill and experience of individuals directly affect the results of unit training. To accomplish satisfactory unit training, the aviation section should participate in division and division artillery training whenever possible.

b. Training with Supported Units. This training is conducted by the aviation section, the CBR element in aerial radiological survey, and other elements of the division artillery. It facilitates the successful accomplishment of the section's support missions and helps to achieve training realism. It also provides elements of the division artillery with personnel who, through close contact with the aviation section, are better prepared to advise the commander on the use of aviation support. Normally, the aviation section will be responsible for the training of the supported units in aviation techniques and procedures. This training can best be accomplished by close liaison and coordination with the training program of the supported unit.

APPENDIX I

REFERENCES

AR 95-series	Aviation.
AR 600-20	Army Command Policy and Procedures.
AR 320-5	Dictionary of United States Army Terms.
AR 320-50	Authorized Abbreviations and Brevity Codes.
AR 611-201	Manual of Enlisted Military Occupational Specialties.
AR 700-2300-40	Army Medical Service Ambulances.
AR 735-35	Supply Procedures for TOE Units, Organizations, and non-TOE Activities.
AR 750-713	Repair and Overhaul of Army Aircraft.
ATP 1-207	Army Training Program for Army Aviation Operating Detachment TOE 1-207.
ATP 8-200	Medical Service Units and Teams.
ATT 8-1	Medical Service Units and Teams.
DA Pam 108-1	Index of Army Motion Pictures, Film Strips, Slides, and Phono-Recordings.
DA Pam 310-series	Military Publications Indexes.
FM 1-10	Army Aviation Organizational Aircraft Maintenance and Supply.
FM 1-60	Army Aviation Air Traffic Operations, Tactical.
FM 1-100	Army Aviation.
FM 5-20	Camouflage, Basic Principles and Field Camouflage.
FM 6-20-1	Field Artillery Tactics.
FM 6-20-2	Field Artillery Techniques.
FM 6-40	Field Artillery Cannon Gunnery.
FM 7-24	Communication in Infantry and Airborne Divisions.
FM 7-100	Infantry Division.
FM 8-5	Medical Service Units, Theater of Operations.
FM 8-35	Transportation of the Sick and Wounded.
FM 11-20	Signal Operations, Theater of Operations.
FM 11-40	Signal Corps Pictorial Operations.
FM 11-51	Signal Air Photo Reproduction and Delivery Company (TOE 11-54).

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FM 17-1	Armor Operations; Small Units.
FM 17-35	Armored Cavalry Platoon, Troop and Squadron.
FM 17-70	Communication for Armor Units.
FM 17-95	The Armored Cavalry Regiment.
FM 19-15	Civil Disturbances and Disasters.
FM 19-40	Handling Prisoners of War.
FM 19-90	The Provost Marshal.
FM 21-5	Military Training.
FM 21-6	Techniques of Military Instruction.
FM 21-30	Military Symbols.
FM 21-40	Small Unit Procedures in Nuclear, Biological and Chemical Warfare.
FM 24-16	Signal Orders, Records, and Reports.
FM 24-18	Field Radio Techniques.
FM 24-20	Field Wire and Field Cable Techniques.
FM 25-10	Motor Transportation, Operations.
FM 27-10	The Law of Land Warfare.
FM 30-5	Combat Intelligence.
FM 30-30	Aircraft Recognition Manual.
FM 57-35	Airmobile Operations.
FM 100-5	Field Service Regulations, Operations.
FM 100-10	Field Service Regulations, Administrative.
FM 101-1	Staff Officers' Field Manual; G1 Manual.
FM 101-5	Staff Officers' Field Manual; Staff Organization and Procedure.
FM 101-10	Staff Officers' Field Manual; Organizational, Technical, and Logistical Data.
Part II	
SB 1-series	Aviation.
TM 1-series	Aviation.
TM 1-1 series	Army Aircraft Handbooks.
TM 19-500	Enemy Prisoners of War.
TM 57-210	Air Movement of Troops and Equipment.
TB AVN-series	Aviation.
TB ENG-101	Lighting Sets for Army Airfield Runways and Heliports.

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ARMY AVIATION ORGANIZATIONS AND EMPLOYMENT

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5-376	44-12
5-605	44-102
5-606	44-112
6-126	51-1
6-136	51-2
6-316	52-1
6-326	52-2
6-401	55-56
6-416	55-57
6-426	55-58
6-501	55-79
6-536	55-456
6-576	55-457
6-616	55-458
7-2	55-500 (AA)
7-52	55-510 (AA, AB)
8-137	

NG: State AG (3); Units—same as active Army except allowance is one copy each.

USAR: Same as active Army.

For explanation of abbreviations used, see AR 320-50.

CHAPTER 2

ARMY AVIATION COMPANY

Section I. GENERAL

2-1. Purpose

This chapter provides guidance for commanders, staff officers, Army aviators, and other Army personnel concerned with the employment of the army aviation company as organized under TOE 1-137D.

2-2. Scope

This chapter provides information concerning mission, organization, planning, employment, administration, and training in sufficient detail to provide the company and element commanders the necessary guidelines for day-to-day operation.

2-3. Mission

The mission of the company is to provide the army headquarters and units subordinate to army headquarters with immediately available and responsive aviation support and necessary air traffic control therefor.

Section II. ORGANIZATION

2-4. Composition

The composition of the army aviation company is shown in figure 2-1.

2-5. Assignment

The army aviation company is assigned on a basis of one to a field army.

2-6. Capabilities and Limitations

- a. At full strength this unit provides the following:
 - (1) Aerial transportation for army commander and staff.
 - (2) Air movement of high priority personnel and emergency aerial resupply of critical supplies and parts.

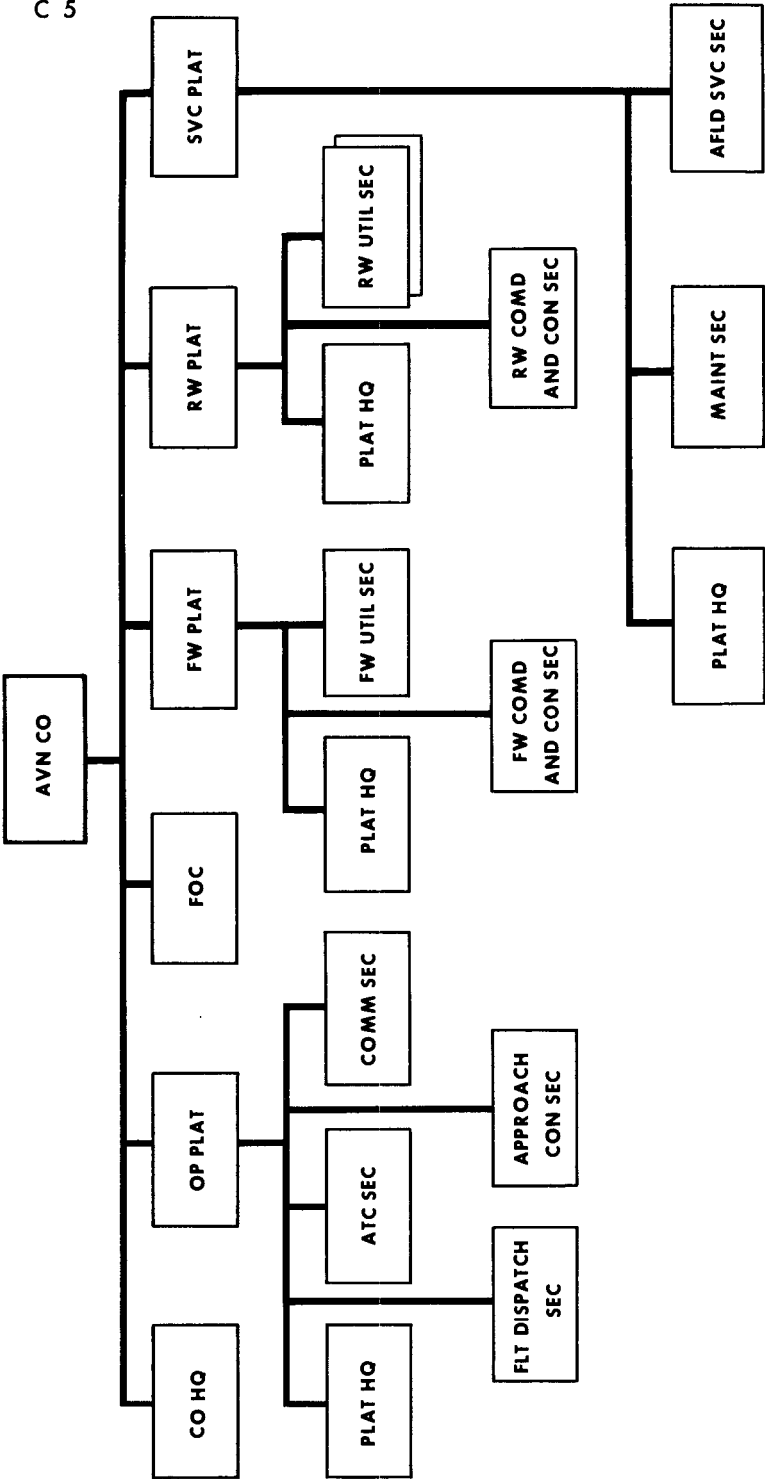


Figure 2-1. Army aviation company (TOE 1-137D).

- (3) Facilities for air traffic regulation of Army aviation operating within the army area.
- (4) Aircraft support for column control, wire laying, radio relay, courier and messenger service.
- (5) Aircraft support for aerial observation, reconnaissance, battlefield illumination, and aerial photography (both day and night).
- (6) Communications, terminal air traffic control, and airfield service for the company airfield.
- (7) Augmentation for aeromedical evacuation.

b. At TOE reduced strength, the above capabilities are reduced approximately 25 percent.

c. This unit is 75 percent mobile.

2-7. Planning and Coordination

a. To maximize the effect of available aviation support, the company commander must exercise close and continuous coordination with the army aviation officer and other members of the army staff.

b. Based on pertinent annexes to operations and administrative orders, the aviation company and element commanders assign specific tasks to the units under their control.

Section III. SECTION EMPLOYMENT AND OPERATIONS

2-8. General

The organization of the sections within the company provides a flexible basis for employment, which is required to meet operational requirements. The army aviation company is employed as directed by the army commander. The army aviation officer exercises special staff supervision of the aviation company.

2-9. Company Headquarters

a. *Mission.* The company headquarters provides command and administrative control for the organic elements of the company. Personnel assigned assist the commander in supervision of operations, maintenance, supply, and training.

b. *Organization.* The company headquarters is organized to provide command control and normal unit administration, messing, supply, operation, and maintenance of assigned motor vehicles.

c. *Personnel.* The company headquarters has a company commander, a first sergeant, mess personnel, a supply sergeant, a motor sergeant, an armorer, a company clerk, a personnel administration clerk, a supply clerk, a light truck driver, two-wheeled vehicle mechanics, and one-wheeled vehicle mechanic helper.

d. *Employment.*

- (1) *Principles of employment.* The company commander is responsible for the selection and organization of the company airfield and the helicopter landing areas. He makes the necessary plans and recommendations to higher headquarters for the disposition and operational employment of the company. The company command post will normally be located at the company airfield.
- (2) *Factors affecting employment.* The mission, terrain, and friendly and enemy situation primarily will determine the location and number of landing areas.

e. *Security.* Security is a responsibility of the company commander. The operations officer will normally make the detailed security plans for the company and effect the necessary coordination with adjacent units to provide an integrated defense. The defensive perimeter is manned on order. All personnel at the company airfield may be required to fight as infantry in defense of the airfield.

f. *Special Operations.* See FM 1-100.

2-10. Operations Platoon

a. *Platoon Headquarters.*

- (1) *Mission.* The mission of the platoon headquarters is to receive and process requests for army aviation support, and to coordinate that support for army headquarters elements.
- (2) *Organization.* The operations platoon headquarters consists of an operations officer, assistant operations officer, and a flight operation chief.
- (3) *Duties of personnel.*
 - (a) *Operations officer.* The operation officer establishes and organizes the company airfield; formulates plans and recommends and issues orders for utilization and operation of organic aircraft; schedules company aircraft in accordance with the priorities established in the army headquarters and in the SOP; plans for movement of the unit and establishes terminal control

procedures in coordination with the flight operations center, air traffic control section, approach control section, and communications section.

- (b) *Assistant operations officer.* The assistant operations officer assists the operations officer in the execution of his normal duties, provides a capability for 24-hour operation, and monitors the proficiency and training of aviators in the company.
- (c) *Flight operations chief.* The flight operations chief assists the operation officer and assistant operations officer in the scheduling of company aircraft, processing of flight plans, and performing other duties as required.

b. *Flight Dispatch Section.*

- (1) *Mission.* The mission of the flight dispatch section is to control the dispatch of all aircraft of the aviation company.
- (2) *Organization.* The flight dispatch section consists of a senior flight operations specialist, two teletype operators, and three additional flight operations personnel.
- (3) *Duties of personnel.* The senior operations specialist and his assistants provide this section with a 24-hour capability in the coordination and dispatch of aircraft assigned to the aviation company. The teletype operators operate as a part of the flight operations center net.

c. *Air Traffic Control Section.*

- (1) *Mission.* The mission of the air traffic control section is to control arrivals and departures of aircraft at the company airfield.
- (2) *Organization.* The air traffic control section consists of a senior control tower operator, two additional control tower personnel, and a powerman.
- (3) *Duties of personnel.* The control tower operators control air traffic in the vicinity of the company airfield on a 24-hour operational basis. The powerman operates the generator sets within the section.

d. *Approach Control Section.*

- (1) *Mission.* The mission of the approach control section is to provide terminal guidance and IFR approach capabilities at the company airfield.
- (2) *Organization.* The approach control section consists of

three senior landing control operators and three landing control operators.

- (3) *Duties of personnel.* The six landing control personnel provide a 24-hour GCA capability at the company airfield.

e. Communications Section.

- (1) *Mission.* The mission of the communications section is to establish radio and wire communications within the aviation company (figs. 2-2, 2-3, and 2-4), operate radio sets in the appropriate Army nets, and perform organizational maintenance on the radio and GCA equipment in the company.
- (2) *Organization.* The communications section consists of a communications officer, a communications chief, a GCA equipment repairman, radio mechanics, wiremen, and radio and switchboard operators.
- (3) *Duties of personnel.* The communications officer supervises the establishment, operation, and maintenance of company radio and wire nets and navigational aids, and supervises personnel of the section. The communications chief assists the communications officer in his duties. Other enlisted personnel of the section serve as radio and switchboard operators, install wire nets as directed, and maintain electronics equipment.

2-11. Flight Operations Center

a. Mission. The mission of the flight operations center is to provide air traffic control, provide aircraft identification to Army air defense command posts, disseminate nuclear artillery and aircraft warnings, and disseminate weather information for army aircraft operating in the army area.

b. Organization. The flight operations center consists of a flight operations center commander, three flight operations control officers, and the necessary enlisted personnel to operate and maintain, on a 24-hour basis, the communications and plotting equipment of the flight operations central AN/MSW-6.

c. Duties of Personnel.

- (1) The flight operations center commander is responsible for regulation and control of army aircraft operating in the army area. He coordinates his activities with other air traffic control agencies and the operations elements of the headquarters.

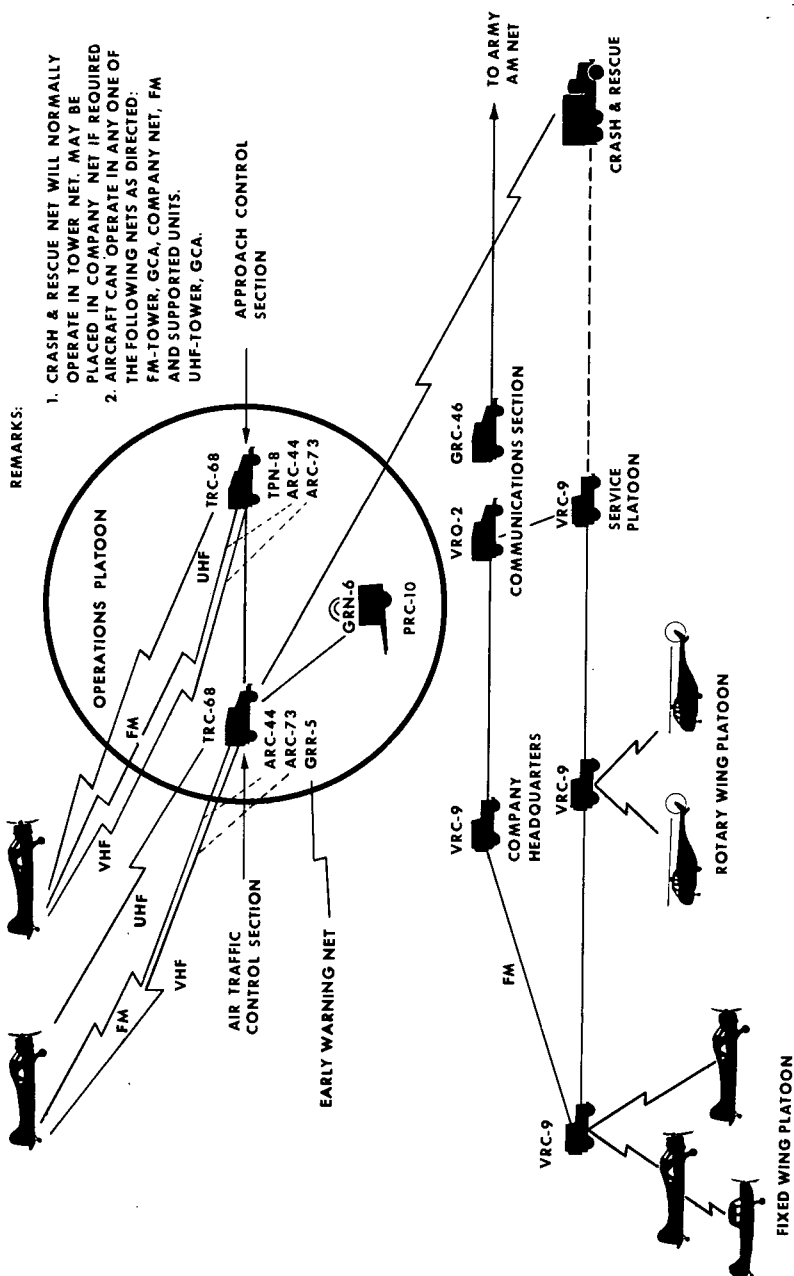


Figure 2-2. Radio net, Army aviation company.

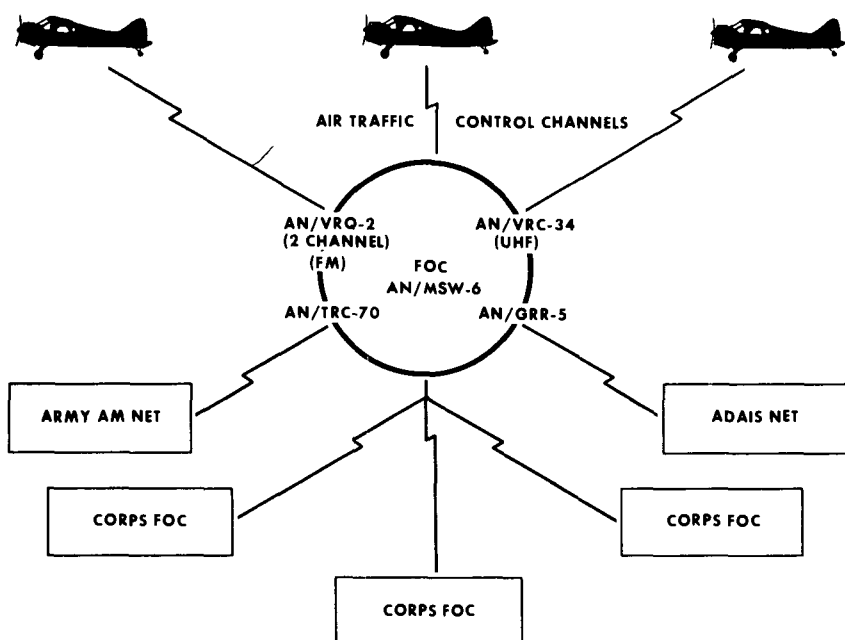


Figure 2-3. Radio net, flight operations center.

- (2) The flight operations control officers assist the center commander in the discharge of his duties.
- (3) The enlisted personnel operate air-ground radio equipment and teletypewriter equipment, maintain plotting boards and air traffic control logs, process flight plans, issue air traffic clearances, disseminate warnings and operate and maintain the vehicles of the organization.

2-12. Fixed Wing Platoon

a. Mission. This platoon furnishes the necessary fixed wing aviation support to provide transportation for the army commander and staff, high priority personnel, and critically needed supplies; it also provides radio relay, emergency evacuation, column control, observation, battlefield illumination, aerial photography, and messenger service.

b. Organization. The fixed wing platoon consists of a fixed wing platoon headquarters, fixed wing command and control section, and a fixed wing utility section.

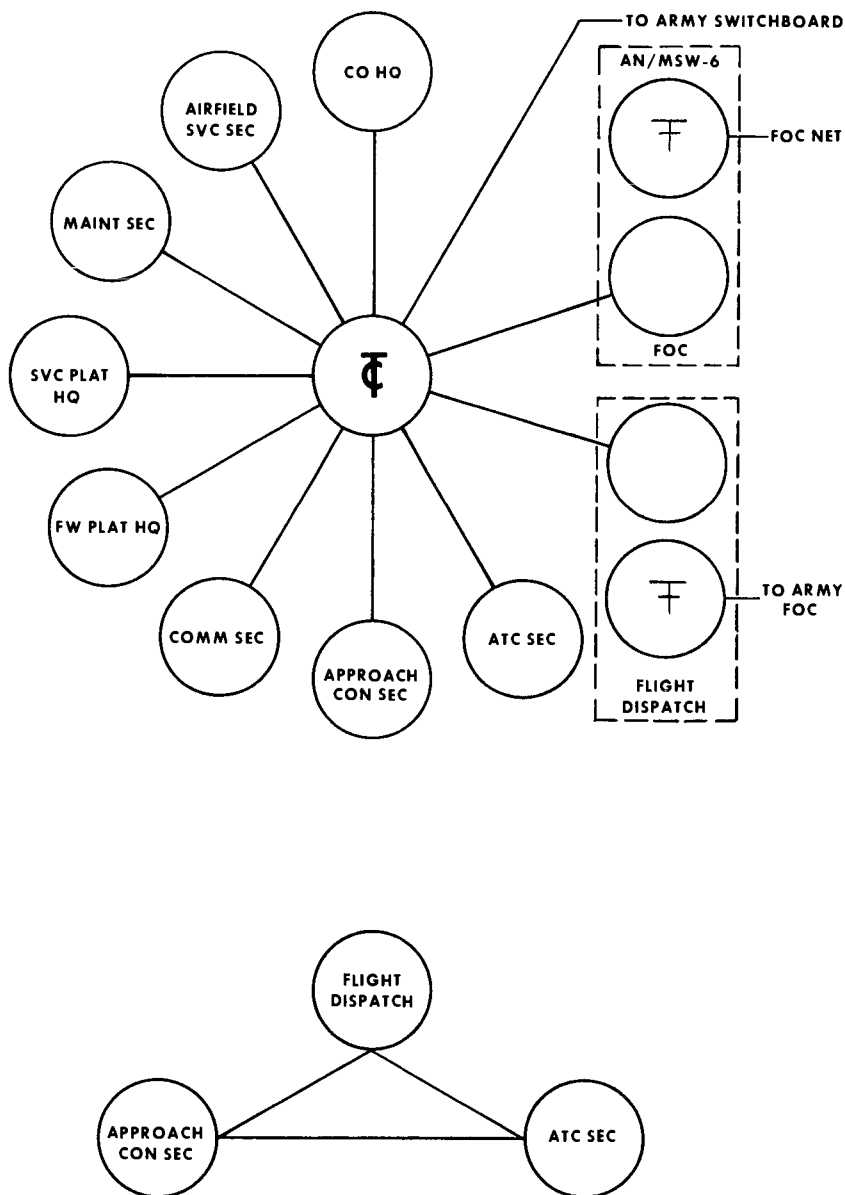


Figure 2-4. Wire net, Army aviation company.

c. Duties of Personnel.

- (1) *Platoon commander.* The platoon commander supervises the activities of the platoon and coordinates with the operations officer the employment of the fixed wing aircraft.
- (2) *Section commanders.* The section commanders supervise the accomplishment of the missions assigned to their sections.

d. Employment. The aircraft of the platoon may be employed individually or by section, depending upon the missions assigned to the platoon. They will normally operate from the company airfield in the vicinity of the army headquarters.

2-13. Rotary Wing Platoon

a. Mission. This platoon furnishes the necessary rotary wing aviation support to provide transportation for the army commander and staff, high priority personnel, and critically needed supplies; it also provides radio relay, emergency aeromedical evacuation, column control, observation, and messenger service.

b. Organization. The rotary wing platoon consists of a rotary wing platoon headquarters, rotary wing command and control section, and two rotary wing utility sections.

c. Duties of Personnel.

- (1) *Platoon commander.* The platoon commander supervises the activities of the platoon and coordinates with the operations officer the employment of the rotary wing aircraft.
- (2) *Section commanders.* The section commanders supervise the accomplishment of the missions assigned to their sections.

d. Employment. The aircraft of the platoon may be employed individually or by section, depending upon the missions assigned to the platoon. They will normally operate away from the company airfield, dispersed by section in the general area of the army headquarters.

2-14. Service Platoon

a. Mission. The mission of the service platoon is to perform aircraft organizational maintenance and airfield services for the company aircraft; prepare and maintain the aircraft maintenance records, schedules, and reports; and to establish and maintain a

technical supply section (independent of normal company supply) for the receipt, issue, stockage, and turn-in of aircraft parts and equipment.

b. Organization. The service platoon consists of a platoon headquarters, maintenance section, and airfield service section.

c. Duties of Personnel.

(1) *Platoon headquarters.*

- (a) *Aircraft maintenance officer.* The aircraft maintenance officer is the service platoon commander. He is responsible for the technical guidance, supervision, and inspection of all organizational maintenance. He plans, schedules, and coordinates with the operations officer to insure that the maintenance effort is in consonance with the operations plan. He advises the commander on all maintenance and technical supply matters, and assists in the occupation and defense of the company area.
 - (b) *Platoon sergeant.* The platoon sergeant assists the maintenance officer. He directs and supervises all enlisted men in the service platoon, except the technical inspectors, and advises the maintenance officer of any unusual maintenance problems. In addition, he assists in the preparation of the defense perimeter of the company airfield.
 - (c) *Technical inspectors.* The technical inspectors provide technical advice and assistance to aircraft maintenance personnel, determine serviceability of aircraft or major assemblies, and report maintenance deficiencies or malpractices to the maintenance officer.
 - (d) *Transportation supply specialist.* The transportation supply specialist receives, issues, stores, maintains, and turns in supplies and equipment for all assigned or attached air items. He computes and maintains a required stock level of aircraft spare parts.
- (2) *Maintenance section.* The maintenance supervisor plans and assigns work, directs and instructs personnel in proper work techniques, assigns work priorities on the basis of tactical requirements and availability of personnel and material, spot checks maintenance activities, acts as aircraft maintenance technical supply officer, and supervises the issuance of tools and equipment. He insures that aircraft equipment or supplies ordered for

specific aircraft accompany those aircraft when transferred or evacuated for maintenance.

(3) *Airfield service section.*

- (a) *Airfield service chief.* The airfield service chief supervises the operations of the airfield service section. Under the supervision of the maintenance officer, he provides all necessary service at the company airfield and coordinates service activities at helicopter landing areas.
- (b) *Crash-rescue specialist.* The crash-rescue specialist drives, maintains, and operates the crash-rescue equipment at the company airfield. He trains and supervises personnel working with the equipment. Personnel from other sections of the platoon are detailed to assist in the operation of the crash-rescue equipment.
- (c) *Powerman.* The powerman installs, maintains, and operates the airfield lighting equipment for the company airfield.

d. *Employment.* The platoon is normally employed as a single unit at the company airfield. However, the section can be divided to provide technical maintenance support to the satellite fields.

Section IV. MARCHES, BIVOUACS, AND ASSEMBLY AREAS

2-15. Marches

a. When required to displace, the aviation company normally moves by increments in order to maintain continuous support for the army headquarters. If it moves as a complete unit, augmentation from external sources is required. The company furnishes necessary route reconnaissance, column control, aerial flank reconnaissance, and other aviation support for the displacement of the army headquarters.

b. Loading plans must be made to move by increment, or to determine the amount of augmentation required to move the company as a complete unit.

2-16. Bivouacs and Assembly Areas

When the location of an army headquarters bivouac or assembly area is established, the aviation company establishes the necessary company airfield and heliports. The airfield is normally located near the army command post. Reconnaissance is made for alternate airfields, which are prepared as time permits. Assembly areas

and bivouacs for the company are utilized as required, especially on long motor marches. Advance planning is necessary to insure proper POL and maintenance support within the company.

Section V. ADMINISTRATION*

2-17. Personnel

The company commander, assisted by the first sergeant, is responsible for company administration. The personnel clerk performs personnel administration for the company, although his physical location is normally with the Army Adjutant General Section.

2-18. Supply

The company headquarters maintains normal unit supply. The supply personnel of the service platoon maintain technical supply for aircraft.

2-19. Maintenance

Each aircraft is assigned a crew chief who supervises or performs organizational maintenance on that aircraft. Technical inspectors from the aircraft maintenance section made periodic spot and technical inspections.

Section VI. TRAINING*

2-20. Individual Training

Most personnel assigned to the company are specialist and as such receive service school training. On-the-job training is utilized to increase the efficiency of the individual training program.

2-21. Section Training

Section training follows the individual training program and is accomplished on the job. As far as possible, sections will be assigned to operate with the same headquarters elements.

*For general principles, see chapter 1.

CHAPTER 8

CORPS AVIATION COMPANY

Section I. GENERAL

8-1. Purpose

This chapter provides guidance for commanders, staff officers, Army aviators, and other Army personnel concerned with the employment of the corps aviation company, as organized under TOE 1-127D.

8-2. Scope

This chapter provides information concerning mission, organization, planning, employment, administration, and training in sufficient detail to provide the company and element commanders with the necessary guidelines for day-to-day operation.

8-3. Mission

The mission of the company is to provide the corps headquarters and units subordinate to corps headquarters with immediately available and responsive aviation support and necessary air traffic control therefor.

Section II. ORGANIZATION

8-4. Composition

The composition of the corps aviation company is shown in figure 8-1.

8-5. Assignment

The corps aviation company is assigned on a basis of one to a corps.

8-6. Capabilities and Limitations

a. At full strength, this unit provides the following:

- (1) Aerial transportation for corps commander and staff.
- (2) Air movement of high priority personnel and emergency aerial resupply of critical supplies and parts.

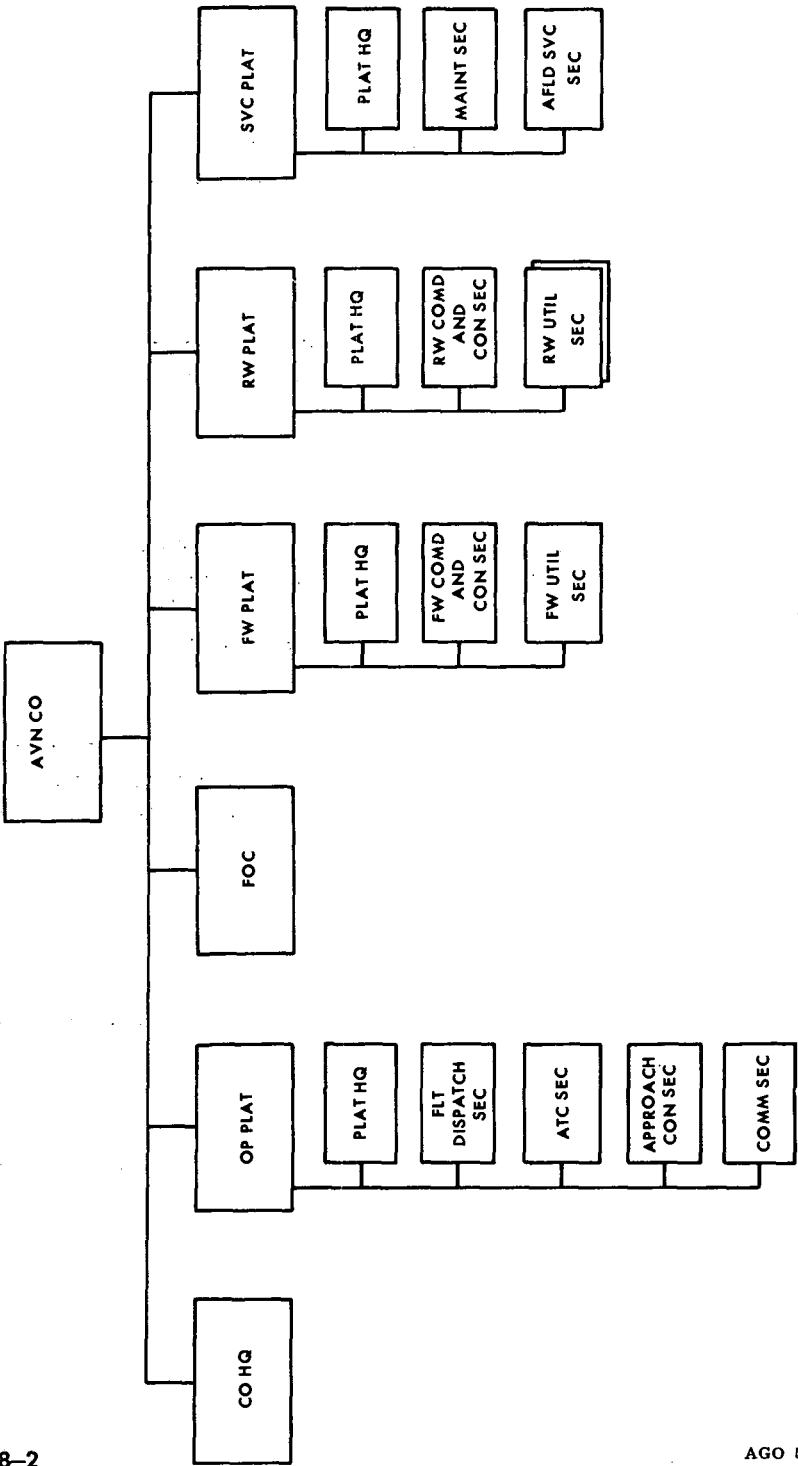


Figure 8-1. Corps aviation company (TOE 1-127D).

- (3) Facilities for air traffic regulation of Army aviation operating within the corps area.
- (4) Aircraft for column control, wire laying, radio relay, courier and messenger service.
- (5) Aircraft for road net reconnaissance, traffic survey, and radiological survey.
- (6) Communications, terminal air traffic control, and airfield service for the company airfield.
- (7) Augmentation for aeromedical evacuation.
- (8) Limited aerial photographic surveillance.

b. At TOE reduced strength, the above capabilities are reduced approximately 25 percent.

c. This unit is 75 percent mobile.

8-7. Planning and Coordination

a. To maximize the effect of available aviation support, the company commander must exercise close and continuous coordination with the corps aviation officer and other members of the corps staff.

b. Based on pertinent annexes to operations and administrative orders, the aviation company and element commanders assign specific tasks to the units under their control.

Section III. SECTION EMPLOYMENT AND OPERATIONS

8-8. General

The organization of the sections within the company provides a flexible basis for employment, which is required to meet operational requirements. The corps aviation company is employed as directed by the corps commander. The corps aviation officer exercises special staff supervision of the aviation company.

8-9. Company Headquarters

a. *Mission.* The mission of the company headquarters is to provide command and administrative control for the organic elements of the company. Personnel assigned assist the commander in supervision of operations, maintenance, supply, and training.

b. *Organization.* The company headquarters is organized to provide command control and normal unit administration, messing, supply, operation, and maintenance of assigned motor vehicles.

c. Personnel. The company headquarters has a company commander, a first sergeant, mess personnel, a supply sergeant, a motor sergeant, an armorer, a company clerk, a personnel administration clerk, a light truck driver, two wheeled vehicle mechanics, and a wheeled vehicle mechanic's helper.

d. Employment.

- (1) *Principles of employment.* The company commander is responsible for the selection and organization of the company airfield and the helicopter landing areas. He makes the necessary plans and recommendations to higher headquarters for the disposition and operational employment of the company. The company command post will normally be located at the company airfield.
- (2) *Factors affecting employment.* The mission, terrain, and friendly and enemy situation primarily will determine the location and number of landing areas.

e. Security. Security is a responsibility of the company commander. The operations officer will normally make the detailed security plans for the company and effect the necessary coordination with adjacent units to provide an integrated defense. The defense perimeter is manned on order. All personnel at the company airfield may be required to fight as infantry in defense of the airfield.

f. Special Operations. See FM 1-100.

8-10. Operations Platoon

a. Platoon Headquarters.

- (1) *Mission.* The platoon headquarters receives and processes requests for army aviation support, and coordinates that support for corps headquarters elements.
- (2) *Organization.* The operations platoon headquarters consists of an operations officer, assistant operations officer, and a flight operations chief.
- (3) *Duties of personnel.*
 - (a) *Operations officer.* The operations officer establishes and organizes the company airfield, formulates plans and recommends and issues orders for utilization and operation of organic aircraft, and schedules company aircraft in accordance with the priorities established in the corps headquarters SOP. He also plans for movement of the unit and establishes terminal control

procedures in coordination with the flight operations center, air traffic control section, approach control section, and communication section.

- (b) *Assistant operations officer.* The assistant operations officer assists the operations officer in the execution of his normal duties, provides a capability for 24-hour operation, and monitors the proficiency and training of aviators in the company.
- (c) *Flight operations chief.* The flight operations chief assists the operations officer and assistant operations officer in the scheduling of company aircraft, processing of flight plans, and performing other duties as required.

b. *Flight Dispatch Section.*

- (1) *Mission.* The mission of the flight dispatch section is to control the dispatch of all aircraft of the aviation company.
- (2) *Organization.* The flight dispatch section consists of a senior flight operations specialist, a teletype operator, and three additional flight operations personnel.
- (3) *Duties of personnel.* The senior operations specialist and his assistants provide this section with a 24-hour capability in the dispatch of aircraft assigned to the aviation company. The teletype operator operates as a part of the flight operations center net.

c. *Air Traffic Control Section.*

- (1) *Mission.* The mission of the air traffic control section is to control arrivals and departures of aircraft at the company airfield.
- (2) *Organization.* The air traffic control section consists of a senior control tower operator, two additional control tower personnel, and a powerman.
- (3) *Duties of personnel.* The control tower operators control air traffic in the vicinity of the company airfield on a 24-hour operational basis. The powerman operates the generator sets within the section.

d. *Approach Control Section.*

- (1) *Mission.* The mission of the approach control section is to provide terminal guidance and IFR approach capabilities at the company airfield.

(2) *Organization.* The approach control section consists of three senior landing control operators and three landing control operators.

(3) *Duties of personnel.* The six landing control personnel provide a 24-hour GCA capability at the company airfield.

e. Communications Section.

(1) *Mission.* The mission of the communications section is to establish radio and wire communications within the aviation company (figs. 8-2, 8-3, and 8-4) and operate radio sets in the appropriate corps nets, and perform organizational maintenance on the radio and GCA equipment in the company.

(2) *Organization.* The communications section consists of a communications officer, a communications chief, a GCA equipment repairman, 2 radio mechanics, 2 wiremen, and 4 radio and switchboard operators.

(3) *Duties of personnel.* The communications officer supervises the establishment, operation, and maintenance of company radio and wire nets and navigation aids, and supervises personnel of the section. The communications chief assists the communications officer in his duties. Other enlisted personnel of the section serve as radio and switchboard operators, install wire nets as directed, and maintain electronics equipment.

8-11. Flight Operations Center

a. Mission. The mission of the flight operations center is to provide air traffic control, provide aircraft identification to Army air defense command posts, disseminate nuclear artillery and aircraft warnings, and disseminate weather information for army aircraft operating in the corps area.

b. Organization. The flight operations center consists of a flight operations center commander, three flight operations control officers, and the necessary enlisted personnel to operate and maintain, on a 24-hour basis, the communications and plotting equipment of the flight operations central AN/MSW-6.

c. Duties of Personnel.

(1) The flight operations center commander is responsible for regulation and control of army aircraft operating in the corps area. He coordinates his activities with other air traffic control agencies and the operations elements of the headquarters.

REMARKS:

1. CRASH & RESCUE SET WILL NORMALLY OPERATE IN TOWER NET. MAY BE PLACED IN COMPANY NET IF REQUIRED.
2. AIRCRAFT CAN OPERATE IN ANY ONE OF THE FOLLOWING NETS AS DIRECTED: FM-TOWER, GCA, COMPANY NET, FM AND SUPPORTED UNITS. UHF-TOWER, GCA.

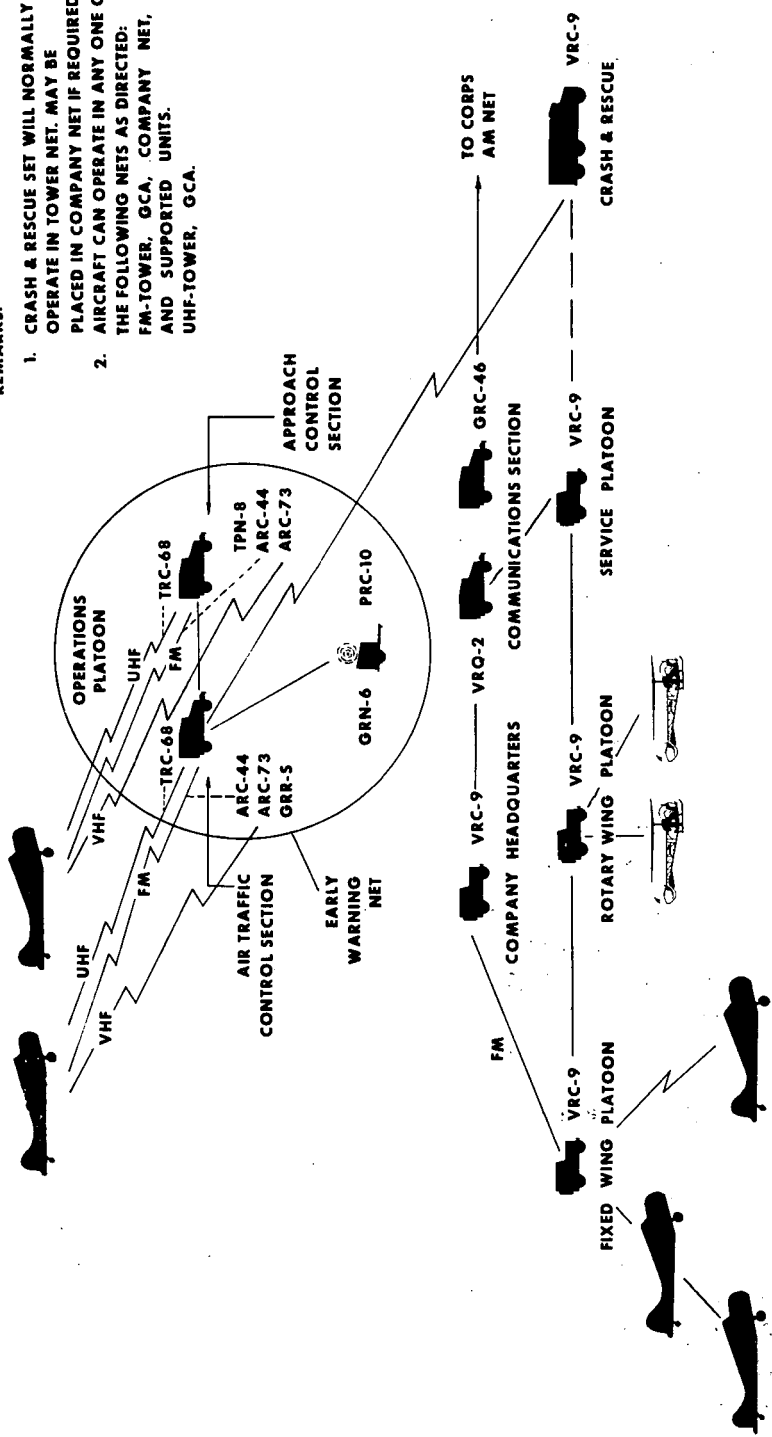


Figure 8-2. Radio net, corps aviation company.

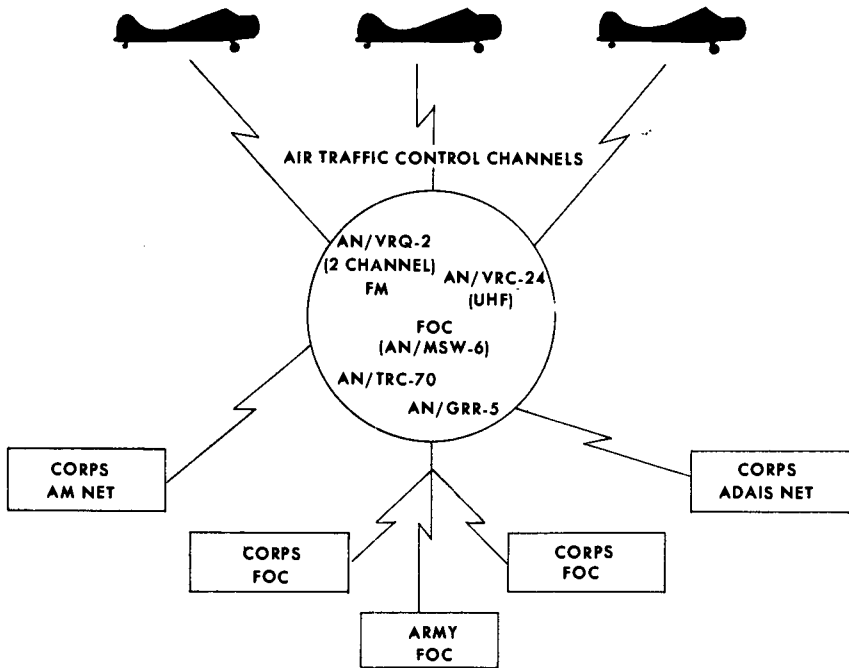


Figure 8-8. Radio net, flight operations center, corps aviation company.

- (2) The flight operations control officers assist the center commander in the discharge of his duties.
- (3) The enlisted personnel operate air-ground radio equipment and teletypewriter equipment, maintain plotting boards and air traffic control logs, process flight plans, issue air traffic clearances, disseminate warnings, and operate and maintain the vehicles of the organization.

8-12. Fixed Wing Platoon

a. Mission. This platoon furnishes the necessary fixed wing aviation support to provide transportation for the corps commander and staff, high priority personnel, and critically needed supplies; it also provides radio relay, emergency evacuation, column control, reconnaissance, messenger service, and road net and radiological survey.

b. Organization. The fixed wing platoon consists of a fixed wing platoon headquarters, fixed wing command and control section, and a fixed wing utility section.

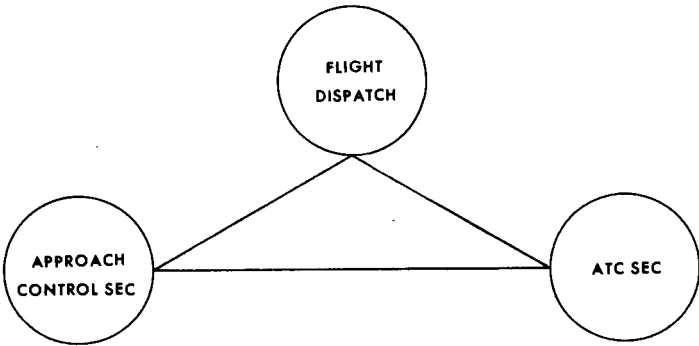
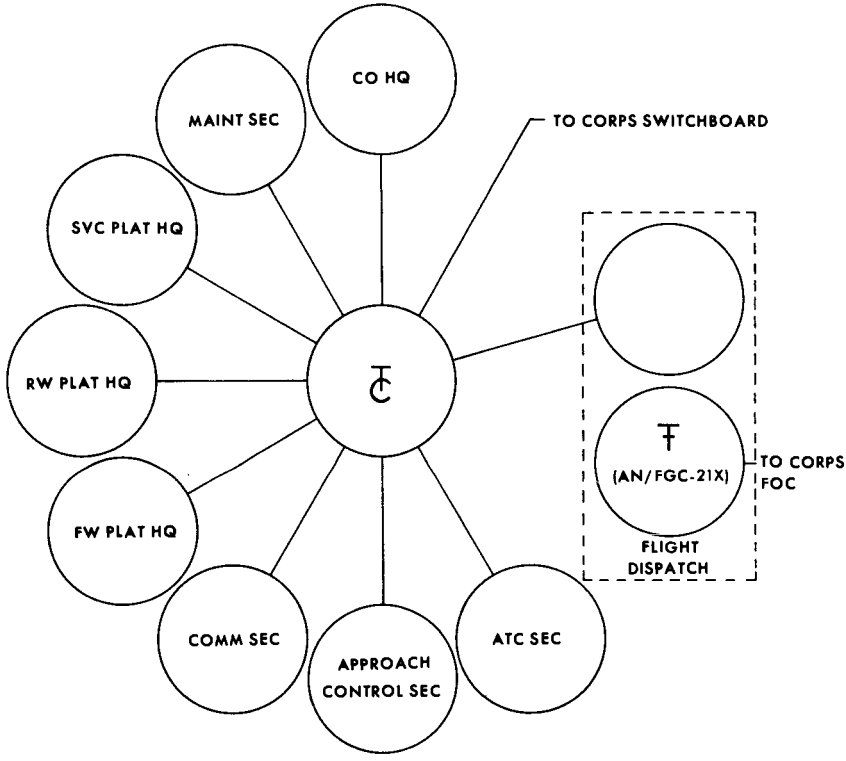


Figure 8-4. Wire net, corps aviation company.

c. Duties of Personnel.

- (1) *Platoon commander.* The platoon commander supervises the activities of the platoon and coordinates with the operations officer on the employment of the fixed wing aircraft.
- (2) *Section commanders.* The section commander supervises the accomplishment of the missions assigned to their sections.

d. Employment. The aircraft of the platoon may be employed individually or by section, depending upon the missions assigned to the platoon. They will normally operate from the company airfield in the vicinity of the corps headquarters.

8-13. Rotary Wing Platoon

a. Mission. This platoon furnishes the necessary rotary wing aviation support to provide transportation for the corps commander and staff, high priority personnel, and critically needed supplies; it also provides radio relay, emergency aeromedical evacuation, column control, reconnaissance, messenger service, and road net and radiological survey.

b. Organization. The rotary wing platoon consists of a rotary wing platoon headquarters, rotary wing command and control section, and two rotary wing utility sections.

c. Duties of Personnel.

- (1) *Platoon commander.* The platoon commander supervises the activities of the platoon and coordinates with the operations officer on the employment of the rotary wing aircraft.
- (2) *Section commanders.* The section commander supervise the accomplishment of the missions assigned to their sections.

d. Employment. The aircraft of the platoon may be employed individually or by section, depending upon the missions assigned to the platoon. They will normally operate away from the company airfield, dispersed by section in the general area of the corps headquarters.

8-14. Service Platoon

a. Mission. The mission of the service platoon is to perform aircraft organizational maintenance and airfield services for the company aircraft; prepare and maintain the aircraft maintenance

records, schedules, and reports; and to establish and maintain a technical supply section (independent of normal company supply) for the receipt, issue, stockage, and turn-in of aircraft parts and equipment.

b. Organization. The service platoon consists of a platoon headquarters, aircraft maintenance section, and airfield service section.

c. Duties of Personnel.

(1) *Platoon headquarters.*

(a) *Aircraft maintenance officer.* The aircraft maintenance officer is the service platoon commander. He is responsible for the technical guidance, supervision, and inspection of all organizational maintenance. He plans, schedules, and coordinates with the operations officer to insure that the maintenance effort is in consonance with the operations plan. He advises the commander on all maintenance and technical supply matters, and assists in the occupation and defense of the company area.

(b) *Platoon sergeant.* The platoon sergeant assists the maintenance officer. He directs and supervises all enlisted men in the service platoon, except the technical inspectors, and advises the maintenance officer of any unusual maintenance problems. In addition, he assists in the preparation of the defense perimeter at the company airfield.

(c) *Technical inspectors.* The technical inspectors are under the supervision of the maintenance officer and provide technical advice and assistance to aircraft maintenance personnel, determine serviceability of aircraft or major assemblies, and report maintenance deficiencies or malpractices to the maintenance officer.

(d) *Transportation supply specialist.* The transportation supply specialist receives, issues, stores, maintains, and turns in supplies and equipment for all assigned or attached air items. He computes and maintains a required stock level of aircraft spare parts.

(2) *Maintenance section.* The maintenance supervisor plans and assigns work, directs and instructs personnel in proper work techniques, assigns work priorities on the basis of tactical requirements and availability of personnel and material, spot checks maintenance activities, acts as aircraft maintenance technical supply officer, and

supervises the issuance of tools and equipment. He insures that aircraft equipment or supplies, ordered for specific aircraft, accompany those aircraft when transferred or evacuated for maintenance.

(3) *Airfield service section.*

- (a) *Airfield service chief.* The airfield service chief supervises the operations of the airfield service section. Under the supervision of the maintenance officer, he provides all necessary service at the company airfield and coordinates service activities at helicopter landing areas.
- (b) *Crash-rescue specialist.* The crash-rescue specialist drives, maintains, and operates the crash-rescue equipment at the company airfield. He trains and supervises personnel working with the equipment. Personnel from other sections of the platoon are detailed to assist in the operation of the crash-rescue equipment.
- (c) *Powerman.* The powerman installs, maintains, and operates the airfield lighting equipment for the company airfield.

d. *Employment.* The platoon is normally employed as a single unit at the company airfield. However, the section can be divided to provide technical maintenance support to the satellite fields.

Section IV. MARCHES, BIVOUACS, AND ASSEMBLY AREAS

8-15. Marches

a. When required to displace, the aviation company normally moves by increments in order to maintain continuous support for the corps headquarters. If it moves as a complete unit, augmentation from external sources is required. The company furnishes necessary route reconnaissance, column control, aerial flank reconnaissance, and other aviation support for the displacement of the corps headquarters.

b. Loading plans must be prepared to indicate loading requirements for both a normal move and a move involving the whole unit. For a complete unit move, this plan will be the basis for augmentation requests.

8-16. Bivouacs and Assembly Areas

When the location of a corps headquarters bivouac or assembly area is established, the aviation company establishes necessary

company airfield and heliports. The airfield is normally located near the corps command post. Reconnaissance is made for alternate airfields, which are prepared as time permits. Assembly areas and bivouacs for the company are utilized as required, especially on long motor marches. Advance planning is necessary to insure proper POL and maintenance support within the company.

Section V. ADMINISTRATION*

8-17. Personnel

The company commander, assisted by the first sergeant, is responsible for company administration. The personnel clerk performs personnel administration for the company, although his physical location is normally with the Corps Adjutant General Section.

8-18. Supply

The company headquarters maintains normal unit supply. The supply personnel of the service platoon maintain technical supply for aircraft.

8-19. Maintenance

Each aircraft is assigned a crew chief who supervises or performs organizational maintenance on that aircraft. Technical inspectors from the aircraft maintenance section make periodic spot and technical inspections.

Section VI. TRAINING*

8-20. Individual Training

Most personnel assigned to the company are specialists and as such receive service school training. On-the-job training is utilized to increase the efficiency of the individual training program.

8-21. Section Training

Section training follows the individual training program and is accomplished on the job. As far as possible, sections will be assigned to operate with the same headquarters elements.

*For general principles, see chapter 1.

CHAPTER 17

ARMY AIR TRAFFIC REGULATION AND IDENTIFICATION (AATRI) COMPANY

Section I. GENERAL

17-1. Purpose

This chapter is a guide for commanders, staff officers, and other personnel on the organization and employment of an Army air traffic regulation and identification (AATRI) company.

17-2. Scope

This chapter covers the mission, organization, employment, capabilities and limitations, administration, and training in sufficient detail to provide company and element commanders with the necessary guidelines for day-to-day operation. See FM 1-60 for more detailed operational concepts.

17-3. Mission

The mission of this company is to provide en route air traffic regulation and identification, navigational aids, flight information, air warnings, and other assistance to in-flight aircraft, and to assist divisions in regulating air traffic in the forward areas.

Section II. ORGANIZATION

17-4. Composition

The composition of the AATRI company is shown in figure 17-1. Equipment is listed in TOE 1-207E.

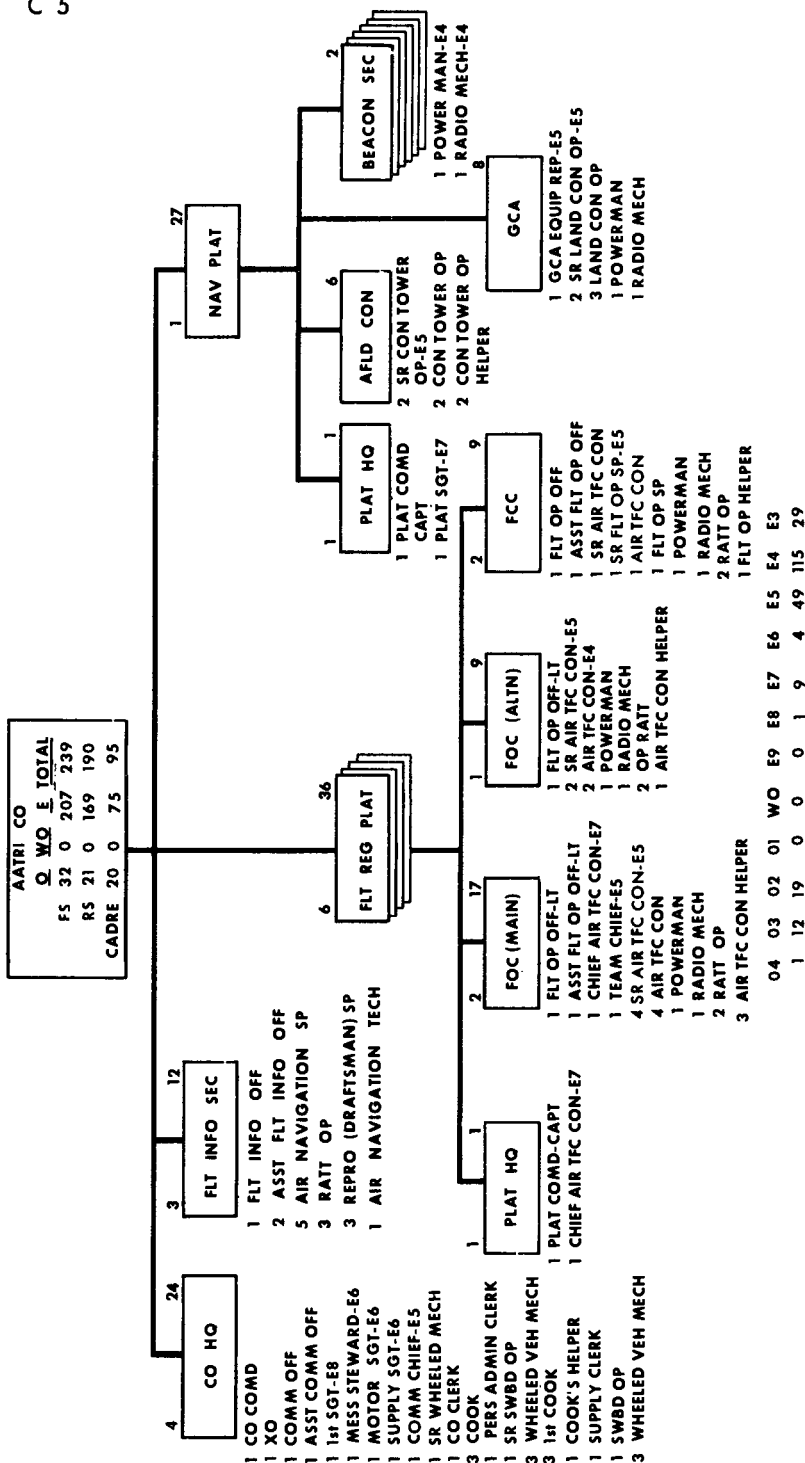
17-5. Assignment

The AATRI company is normally assigned one per field army. Elements of this unit may be used in a separate corps or communications zone.

17-6. Capabilities

At full strength, this unit provides the following:

a. Continuous (day and night) flight regulation of aircraft operating in the Army air traffic regulation system.



- b. Emergency weather information to aircraft in flight.
- c. Coordination of air traffic with other services and allied forces as required.
- d. Facilities to assist divisions in regulating air traffic in the forward area.
- e. Assist in identifying aircraft for air defense elements.
- f. Current flight information, etc.

17-7. Planning and Coordination

a. Air traffic regulation and navigation systems are a command responsibility. The AATRI company operates under the special staff supervision of the Army aviation officer of the command to which assigned. The air traffic regulation system must be closely integrated with the air defense system. When coordination with other services is necessary to avoid confusion and duplication, the Army aviation officer at the appropriate headquarters will establish required liaison.

b. Elements of the AATRI company function under the staff supervision of the aviation officer at the level to which these elements are assigned.

Section III. EMPLOYMENT AND OPERATIONS

17-8. General

The AATRI company will be employed by assigning its major elements to field army and corps as required. Employment of individual elements of the AATRI company is covered in paragraphs 17-10 through 17-12.

17-9. Company Headquarters

a. *Mission.* The company headquarters provides command, administration, and supervision of operations, maintenance, supply, and training for the company.

b. *Organization.* The company headquarters consists of a company commander, executive officer, communications officer, and an assistant communications officer who is also supply and motor officer. Enlisted personnel include the first sergeant, mess steward, motor sergeant, supply sergeant, and communications chief. In addition, sufficient personnel are assigned to perform administration and vehicular maintenance, to install and operate the com-

pany switchboard and internal communications, and to meet company supply and mess requirements.

c. Employment. The company headquarters may be located near the tactical operations center (TOC), the main flight operations center, Army air defense command post, and the control and reporting center (FOC-AADCP-CRC) complex, or elsewhere in the service area of the field army as the situation dictates.

d. Equipment. See current TOE 1-207E.

e. Security. The company commander is charged with overall responsibility for security. The executive officer supervises internal security. The company headquarters normally operates in close proximity to, and is protected by, the perimeter defense of the headquarters to which it is attached.

17-10. Flight Information Section

a. Mission. This section assists the AATRI company commander in planning, collecting, evaluating, and editing all flight information to include all instrument approach procedures required by aviators and operations personnel in the field army.

b. Organization. This section consists of a flight information officer, two assistant flight information officers, five air navigation specialists, three radio teletype operators, three reproduction (draftsmen) specialists and one air navigation technician.

c. Employment. This section is housed in S-141/G shelter(s) mounted on 2½-ton truck(s). Normally, it is located in the company headquarters area. Information is disseminated to flight operation centers (FOC's), flight coordination centers (FCC's), and airfields by the area communication system, with the AN/GRC-46 radio teletypewriter set and courier as backup.

d. Equipment. See current TOE 1-207E.

e. Security. This element is normally located in the company headquarters area and is included in the company security plan.

17-11. Flight Regulation Platoons

a. Mission. Within their capabilities, these platoons provide air traffic regulation, identification, warning, and in-flight assistance for all aircraft operating in the AATRI system.

b. Organization. Each of the four platoons consists of a platoon headquarters, FOC section (main), FOC section (alternate), and an FCC section.

- (1) *Platoon headquarters*. Platoon headquarters consists of a platoon commander who is also the chief flight operations officer for the main FOC, and chief air traffic controller who is also the chief controller for the main FOC.
- (2) *FOC section (main)*. Each FOC (main) consists of a flight operations officer, an assistant flight operations officer, 12 air traffic controllers, 3 radio teletype operators, a powerman, and a radio mechanic.
- (3) *FOC section (alternate)*. Each FOC (alternate) consists of a flight operations officer, five air traffic controllers, two radio teletype operators, a powerman, and a radio mechanic.
- (4) *FCC section*. Each FCC consists of a flight operations officer, an assistant flight operations officer, three flight operations specialists, two air traffic controllers, two radio teletype operators, a powerman and a radio mechanic.

c. Employment.

- (1) *Main FOC's*. The main FOC's are established in field army service areas and corps rear areas. The FOC located at field army is the heart of the AATRI system and assists the Army aviation staff officer in AATRI system planning. It coordinates all elements in the system to provide aircraft flight following, adequate separation of aircraft under instrument conditions, and identification of friendly aircraft to friendly air defense agencies. FOC's are located adjacent to Army air defense command posts, and their sectors of responsibility approximately coincide. Normally, the field army FOC regulates air routes in the field army service area and those entering the corps area, to the first navigational fix within the corps sector. Corps FOC's normally regulate traffic in the corps sector and forward to a designated navigational fix in the division sector.
- (2) *Alternate FOC's*. The purpose of alternate FOC's is to provide a regulating capability during displacement of the main FOC's or when the main FOC's are inoperative. These FOC's include only enough personnel for single-shift operation. To accomplish this regulating capability, they must monitor all air traffic continuously. The alternate FOC's are located with the alternate Army air defense command posts (AADCP's) or adjacent to air defense battalion fire distribution systems.

- (3) *Flight coordination center (FCC)*. The FCC is a forward extension of the FOC capability. The FCC serves as a communication relay center between forward area airfields, FOC's, other FCC's, and aircraft; accepts flight plans from forward area airfields and aircraft; issues clearances for aircraft in forward areas to enter the en route system; keeps track of AATRI aircraft operating within its area of responsibility; passes regulation of aircraft operating in the en route system to terminal (destination) airfields; passes available friendly aircraft to forward area air defense units; and provides FOC's with identification and position information as required. The FCC is normally located in the forward area of the corps or a division rear area, and is sited to provide the optimum communication capability.

d. Equipment.

- (1) FOC's (main and alternate) use the AN/MSW-6 van, with installed communications equipment, plotting boards, and en route traffic regulating consoles. Sufficient power is provided by trailer mounted generators.
- (2) FCC's are contained in S-141/G shelters mounted on 2½-ton, 6 x 6 trucks. These shelters are also self-contained units possessing communications consoles and other equipment permitting flight regulation, flight following, and position determination. Trailer mounted generators supply power needs.

e. Security. FOC's will be included in the overall security plan of the headquarters to which attached. Because of operational requirements and limited personnel, security support will be required. Whenever possible, FCC's must be located where security support can be provided by a larger unit.

17-12. Navigational Platoon

a. Mission. This platoon is capable of providing navigational facilities for the establishment of one alternate major airfield (beacon, airfield control, and ground controlled approach (GCA) radar). Alternate airfields can be used before and during displacement of elements. The platoon's navigation equipment can also be used to expand the capabilities of other airfields. It also assists in establishing navigational fixes (radio beacons) to augment or supplement established flight routes.

b. Organization.

- (1) The platoon headquarters consists of a platoon leader and a platoon sergeant who supervise the installation and operation of all platoon facilities.
- (2) The airfield control section consists of six enlisted control tower personnel and the equipment required to provide terminal control of an airfield.
- (3) The ground control approach (GCA) section consists of a GCA equipment repairman, five landing control operators, a radio mechanic, and a powerman. This section provides an instrument flight rules (IFR) approach capability.
- (2) The beacon section consists of six 2-man teams. Each team (a powerman and a radio mechanic) is capable of operating one radio beacon.

c. Employment.

- (1) The platoon headquarters supervises the operations of all section in the platoon.
- (2) The airfield control section operates an airfield during displacement or an alternate landing facility as required.
- (3) The GCA section provides backup capability for a major airfield during displacements or when a major airfield's GCA equipment is inoperative.
- (4) The beacon teams are normally emplaced to assist during displacements or when an organic facility is inoperative. They are also used to establish additional en route navigational capabilities, if required.

d. Equipment. See current TOE 1-207E.

e. Security. These units are attached to support other installations as required. Security must be provided within the security plan of the supported unit.

Section IV. COMMUNICATIONS

17-13. General

Communication in the AATRI system must be fast, direct, and uninterrupted. AATRI communications include air and ground radio between aircraft and FOC's, FCC's or airfields; and ground-to-ground communications between FOC's and FCC's, airfields, the flight information section, sources of weather information, air defense command posts, forward air defense firing units, and

tactical operations centers. The area communications system is the primary means of communicating on the ground, but radio (RATT and voice) is provided as backup.

17-14. Area Communication System

AATRI elements may enter the area system by wire or radio (through radio-wire integration). Sole user (allocated) circuits are provided by the area system to insure uninterrupted service between all AATRI elements. Wire link between AATRI elements and the nearest switching central (point of entry) in the area system is provided by the signal unit which supports the command to which the AATRI elements are attached or assigned, or by the signal unit which operates the area center (fig. 17-2).

17-15. Radio Communication

a. Air-to-Ground. The FOC (AN/MSW-6) used in main and alternate FOC's include UHF-AM, VHF-AM, and VHF-FM radio transceivers to communicate with aircraft in flight. These same radios are used in the S-141/G shelter in the FCC, and in the $\frac{3}{4}$ -ton trucks of airfield control and GCA sections. These sets are used to communicate position reports, flight clearances, and instructions and warnings to aviators (fig. 17-3).

b. Ground-to-Ground. High frequency (HF) radios are provided as backup for the area system. Voice and radio teletype circuits are established between FOC's, FCC's, the flight information section, and airfields, for filing flight plans, issuing clearances, transmitting position and identification information, coordinating flights, and exchanging information with the flight information section. High frequency receivers are employed in the FOC's, FCC's, and at airfields to receive Army air defense information service warnings of enemy air activity and nuclear weapons employment. Warnings are retransmitted over air-ground radios to aircraft in flight.

17-16. Communication Between Company Elements

To stay abreast of the tactical situation and monitor air traffic regulation and identification problems, company headquarters and the flight information section will normally be located in the vicinity of the TOC. Platoon headquarters of the flight regulation platoons supervises and participates in the operation of the main FOC where it is located. From the main FOC, it supervises operation of alternate FOC's, and of FCC's of the platoon. When the company is employed by field army, one platoon normally serves

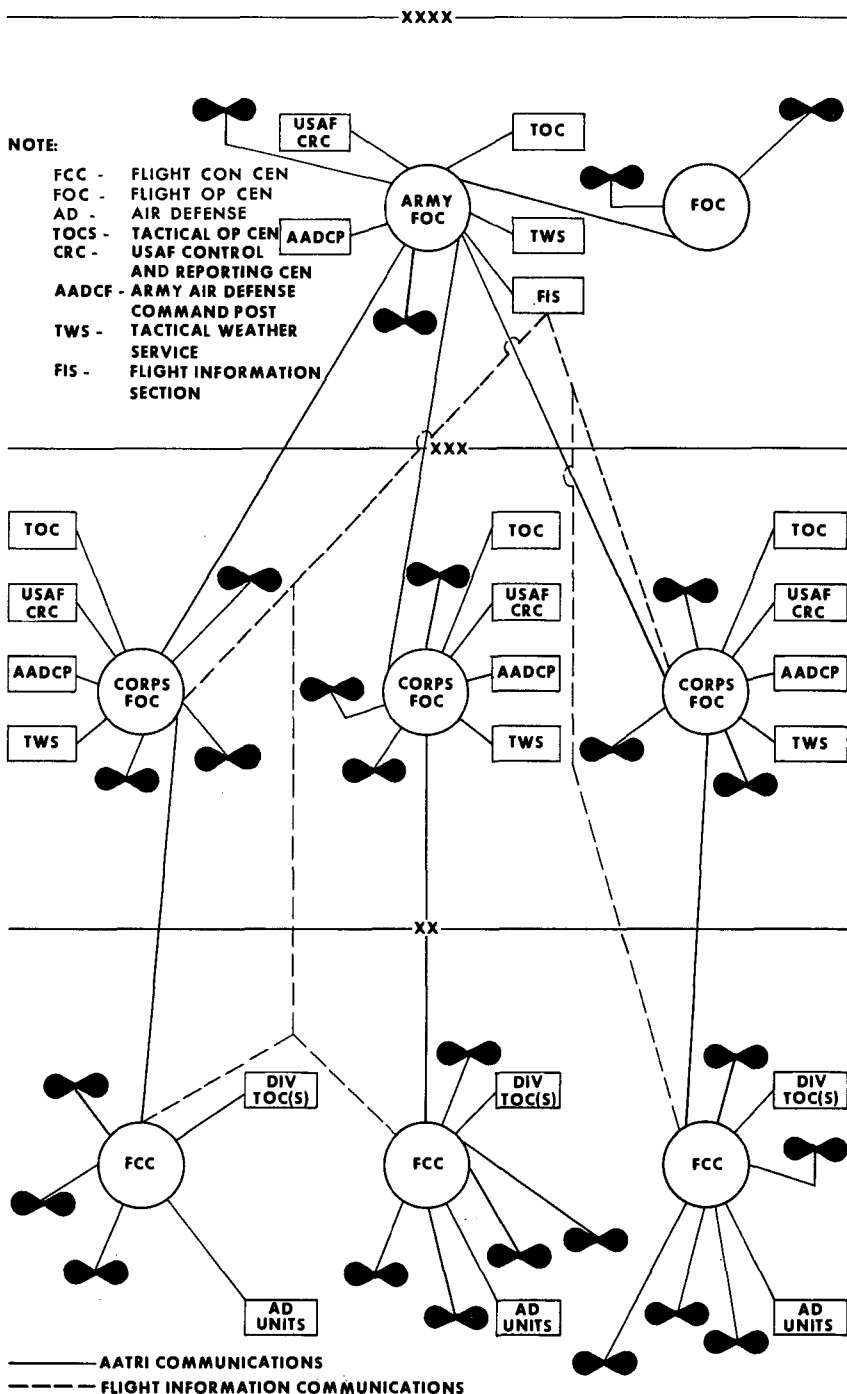


Figure 17-2. Communications system schematic, AATRI company.

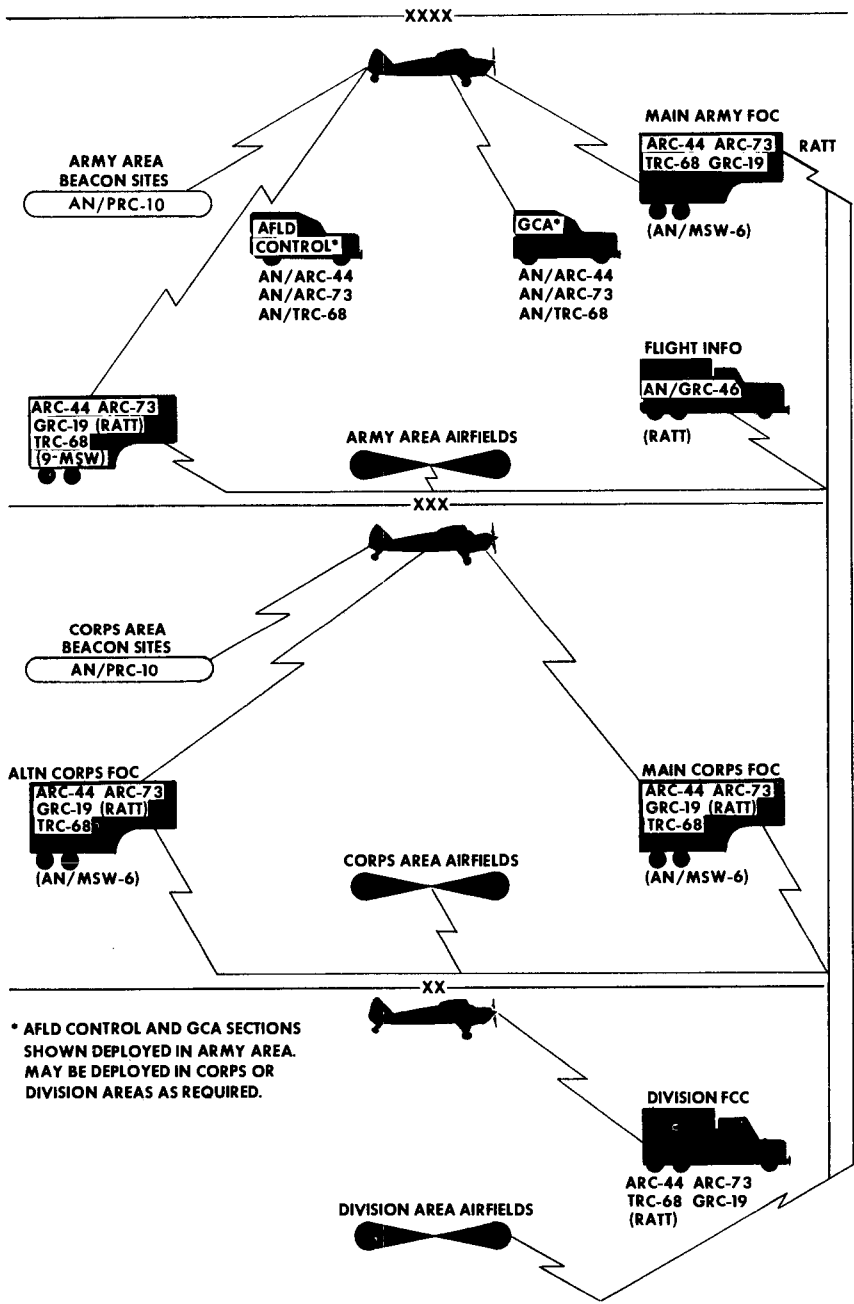
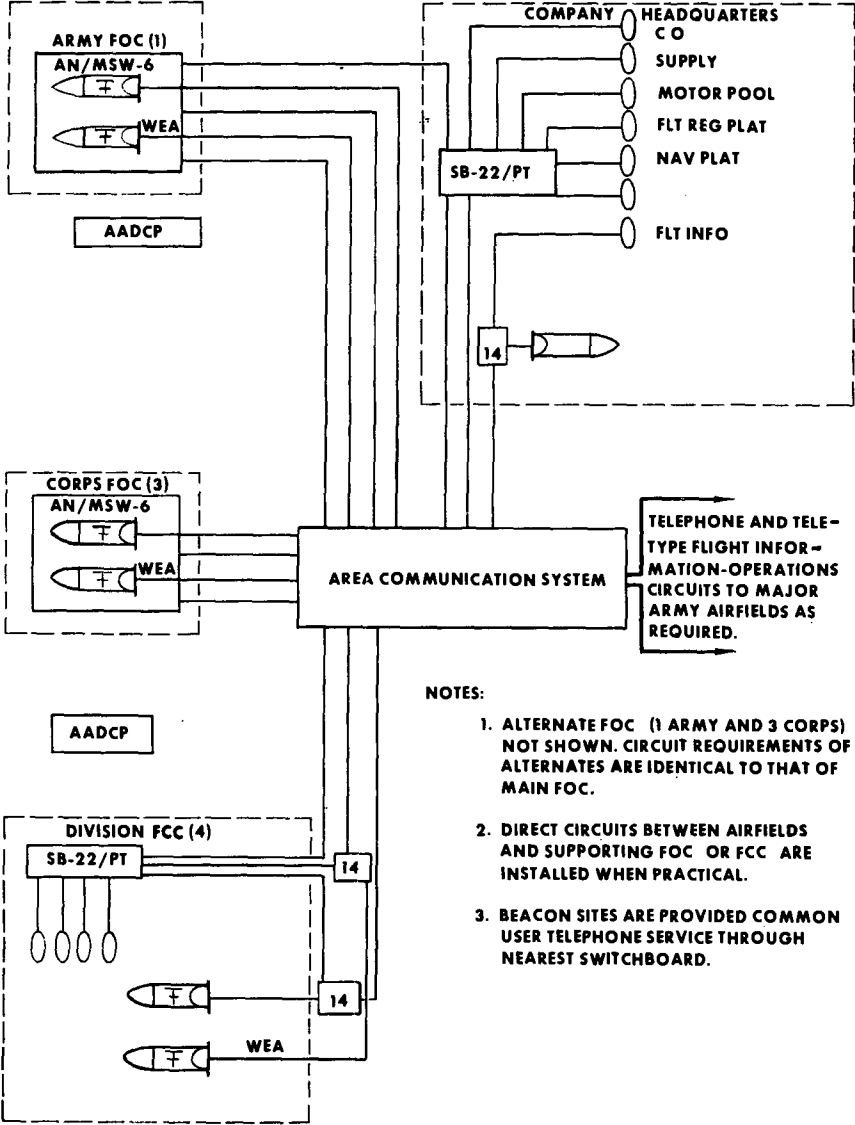


Figure 17-3. Radio net, AATRI company.

the field army service area and one serves each corps. In the platoons serving each corps, the main and alternate FOC's operate in the corps rear area and the FCC operates in a division area as a forward extension of the corps FOC. The navigational platoon headquarters normally is in the vicinity of the main airfield of the command, where the platoon commander can utilize general support aircraft for system checks. The company commander communicates with elements of his company utilizing the area communication system or direct wire circuits when proximity of elements obviates the requirement to use the area system. In addition, FOC's, FCC's, airfields, and the flight information section are interconnected by the area system with high frequency voice radio and RATT backup.

17-17. Wire Communication

(Fig. 17-4)



NOTES:

1. ALTERNATE FOC (1 ARMY AND 3 CORPS) NOT SHOWN. CIRCUIT REQUIREMENTS OF ALTERNATES ARE IDENTICAL TO THAT OF MAIN FOC.
2. DIRECT CIRCUITS BETWEEN AIRFIELDS AND SUPPORTING FOC OR FCC ARE INSTALLED WHEN PRACTICAL.
3. BEACON SITES ARE PROVIDED COMMON USER TELEPHONE SERVICE THROUGH NEAREST SWITCHBOARD.

Figure 17-4. Wire net, AATRI company.

Section V. MARCHES, BIVOUACS, AND ASSEMBLY AREAS

17-18. Displacements

The AATRI company is authorized adequate vehicles for transportation of organic personnel and equipment. When elements are displacing, they will normally move with the major unit to which attached or assigned.

17-19. Bivouacs and Assembly Areas

The AATRI elements will normally be integrated into the bivouac and assembly areas of the unit to which attached or assigned.

Section VI. ADMINISTRATION

17-20. Personnel

The executive officer, assisted by the first sergeant, is responsible to the company commander for routine company administration. The higher headquarters to which the company is assigned is responsible for personnel administration.

17-21. Supply

The company headquarters maintains normal unit supply. Supporting technical service units provide logistical support as required.

17-22. Maintenance

AATRI company personnel will perform 1st echelon maintenance on all equipment; 2d echelon maintenance of radio, radar, and electrical generating equipment; and limited 3d and 4th echelon maintenance of the GCA radar (certain testing and operations performed during siting and installation fall within the category). Second echelon vehicular maintenance is performed organically.

Section VII. TRAINING

17-23. Individual Training

Unit mission specialist (air traffic controllers, air navigation specialists, GCA operators, cartographic draftsmen, and maintenance personnel) must be trained in their specialties prior to assignment to the AATRI company. On-the-job training is emphasized once the specialist joins the company.

17-24. Section Training

Each team and section in the AATRI company will be trained to perform its mission independently and as an integrated unit. This training must be performed in conjunction with air defense elements and, where possible, with USAF elements performing similar functions.

FIELD MANUAL

ARMY AVIATION ORGANIZATIONS AND EMPLOYMENT

CHANGES }
No. 1 }

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C., 13 March 1961

FM 1-5, 29 May 1959, is changed as follows:

Page iv, Chapter 15 is deleted, and the following is substituted:

	Paragraphs	Page
CHAPTER 15. AVIATION COMPANY ARMORED CAVALRY REGIMENT		
Section I. General	15-1 to 15-3	15-1
II. Organization	15-4 to 15-6	15-1
III. Section employment and operations	15-7 to 15-14	15-3
IV. Marches, bivouacs, and assembly areas	15-15 to 15-17	15-12
V. Administration	15-18, 15-19	15-13
VI. Training	15-20, 15-21	15-15

Remove pages 15-1 and insert new pages 15-1 through 15-15.

BY ORDER OF THE SECRETARY OF THE ARMY:

G. H. DECKER,
General, United States Army,
Chief of Staff.

Official:

R. V. LEE,
Major General, United States Army,
The Adjutant General.

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Units org under fol TOE:	55-467 (3)
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1-17 (5)	55-469 (3)
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1-117 (5)	55-479 (3)
1-127 (5)	

NG: State AG (3) ; Units org under fol TOE: 7, 17, 5-35, 5-192, 6-125, 6-135, 6-315, 6-325, 6-401, 6-415, 6-435, 6-501, 6-515, 6-575, 11-15, 11-117, 20-45 (1)

USAR: Same as Active Army.

For explanation of abbreviations used see AR 320-50.

CHAPTER 15

ARMORED CAVALRY REGIMENT AVIATION COMPANY

Section I. GENERAL

15-1. Purpose

This chapter is a guide for commanders and personnel of the armored cavalry regiment aviation company, in the performance of their duties and the accomplishment of the company mission.

15-2. Scope

This chapter provides basic information on organizations, missions, training, and planning of an armored cavalry regiment aviation company in sufficient detail to give commanders the necessary guidelines for employment of the company and its elements.

15-3. Mission

The mission of this unit is to increase the combat effectiveness of the regiment by providing the regiment and its elements with immediately responsive organic aviation support.

Section II. ORGANIZATION

15-4. Composition

The composition of the armored cavalry regiment aviation company, is shown in figure 15.1.

15-5. Assignment

The aviation company is organic to the armored cavalry regiment.

15-6. Capabilities and Limitations

- a. At full strength, this unit provides the following:
 - (1) Continuous (day and night) flight operations during visual weather conditions.
 - (2) Limited operations under instrument weather conditions.
 - (3) Aerial observation to include—
 - (a) Surveillance and target acquisition through employment of observers, cameras, and radars.

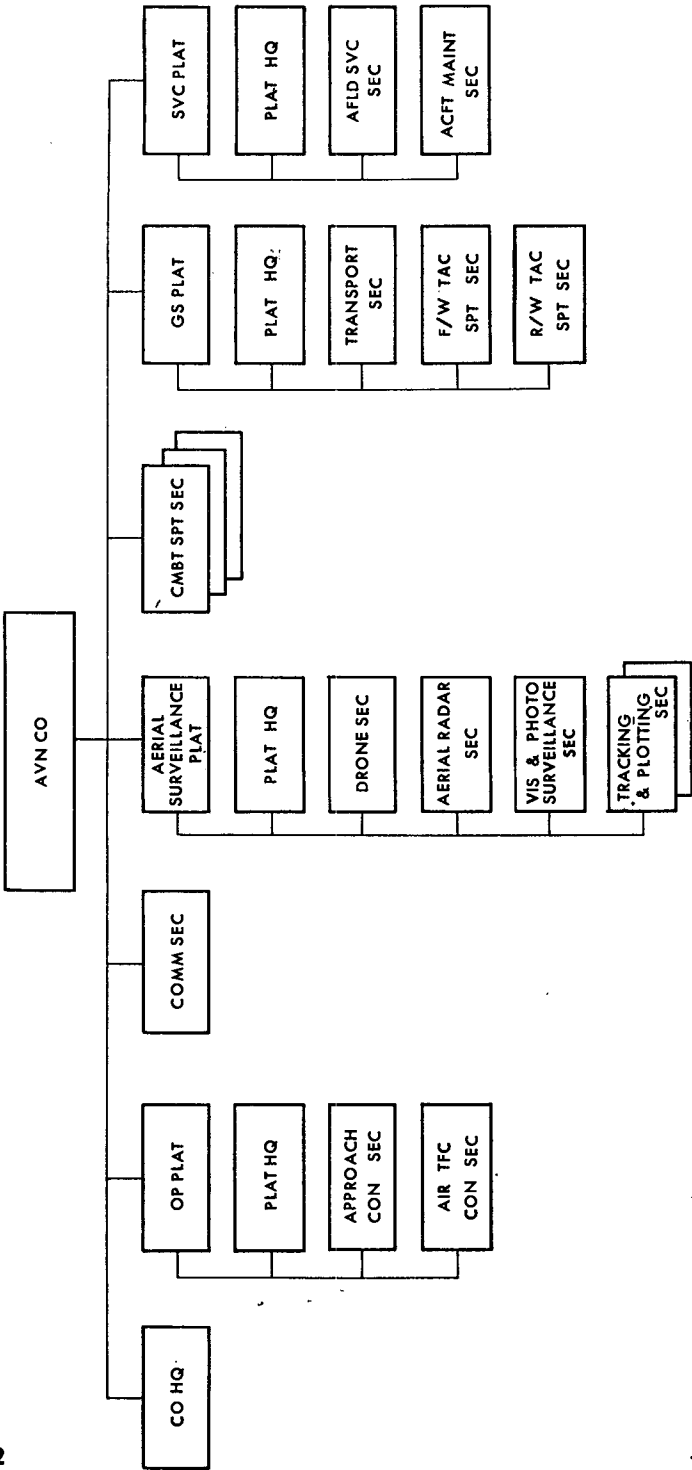


Figure 15-1. Armored cavalry regiment aviation company.

- (b) Adjustment of artillery and mortar fire.
- (c) Reconnaissance.
- (d) Radiological surveillance.
- (4) Aerial movement of troops and critically-needed combat supplies and equipment.
- (5) Continuous limited aeromedical evacuation from the immediate battlefield under conditions of normal operations.
- (6) Battlefield illumination.
- (7) Radio relay.
- b. The reduced strength column, TOE, diminishes the capabilities of this unit 50 percent as established by table I, supply bulletin 1-1, for the peacetime flying hour program.
- c. This unit is not adaptable to type B organization.
- d. The unit is dependent upon headquarters and headquarters troop, armored cavalry regiment, for personnel administration.
- e. Individuals of this unit can fight as infantrymen when required.

Section III. SECTION EMPLOYMENT AND OPERATIONS

15-7. General

- a. The company headquarters is capable of assuming command and control of additional aviation units as required.
- b. The aviation company may be employed either as an integral unit, by individual platoons or sections, or in conjunction with attached or supporting aviation elements. Employment of the company should be directed toward supporting the operational requirements of the squadrons of the regiment.
- c. The company commander is responsible for selection and organization of the base airfield as directed by higher headquarters.
- d. Terrain, the enemy situation, or the regimental mission may require employment of company headquarters elements from one or more satellite airstrips, necessitating attachment of additional communications equipment and personnel for proper exercise of command and control.
- e. All sections are dependent upon the armored cavalry regiment for security.
- f. For special operations, see FM 1-100.

15-8. Company Headquarters

- a. *Mission.* The aviation company headquarters is organized

to provide command, control, and administrative supervision of assigned, attached, and supporting aviation units, as well as concurrent internal administration.

b. Organization. The section consists of a company commander, executive officer, first sergeant, mess steward, supply sergeant, first cook, cooks, company clerk and intermediate-speed radio operators.

c. Equipment. See current TOE 1-67D.

d. Duties of Personnel.

(1) *Company commander.* The company commander serves as an aviation advisor to the armored cavalry regiment commander, and exercises command and supervision of the aviation company.

(2) *Executive officer.* The executive officer assists the company commander in all phases of company operation and during his absence represents him.

e. Employment. The company headquarters is established at, and habitually operates from, the base airfield. This location facilitates the most effective command and control over elements of the company as well as maximum use of communications equipment. The base airfield will be established as close as possible to the regimental CP consistent with security and the tactical situation.

15-9. Operations Platoon

a. Mission. This platoon performs the operations, plans and training, intelligence, communications, and air traffic control functions of the company.

b. Organization. The operations platoon consists of a platoon headquarters, an approach control section, and an air traffic control section.

c. Duties of Personnel.

(1) *Platoon headquarters.*

(a) *Flight operations officer.* The flight operations officer accepts and processes mission requests, and assigns these missions to elements of the company which are not in direct support of some element in the regiment. Mission requests from regimental units which have direct support army aviation elements will be placed directly on those elements. The flight operations officer advises the company commander on the availability of aircraft and crews, assists in planning company

missions and the training of pilots, and coordinates maintenance schedules with the service platoon. He actively supervises the personnel in the operations platoon.

- (b) *Assistant flight operations officer.* This officer is responsible for all intelligence operations of the aviation company, and acts as the briefing and debriefing officer for pilots and observers.
- (c) *Flight operations chief.* The flight operations chief assists the operations officer in the performance of his duties, and supervises the preparation of flight plans and manifests, and the maintenance of flight logs and records.
- (2) *Approach control section.* The senior landing control operators (2) of the approach control section establish, operate, and maintain the ground control approach system.
- (3) *Air traffic control section.* The senior control tower operator of the air traffic control section operates the base airfield control tower under the supervision of the operations officer.

d. *Employment.* This platoon is normally employed as a single unit at the base airfield but can be divided for special operations. The operations platoon normally operates in the vicinity of company headquarters, and is the focal point for flight operations of the company.

15-10. Communications Systems

a. *Mission.* The communication section establishes, operates, and maintains the communication facilities of the aviation company, including wire, radio, and teletype (figs. 15.2 and 15.3).

b. *Organization.* The communications section consists of a communications officer, communications chief, GCA repairman, senior radio mechanic, senior switchboard operator, intermediate-speed radio operator, radio mechanic, radio teletype operator, and a switchboard operator.

c. *Duties of Personnel.*

- (1) *Communications officer.* The communications officer supervises the establishment and operation of the company communication system, and coordinates with the operations officer in the establishment of the control tower. He is responsible for training of individuals within his section.

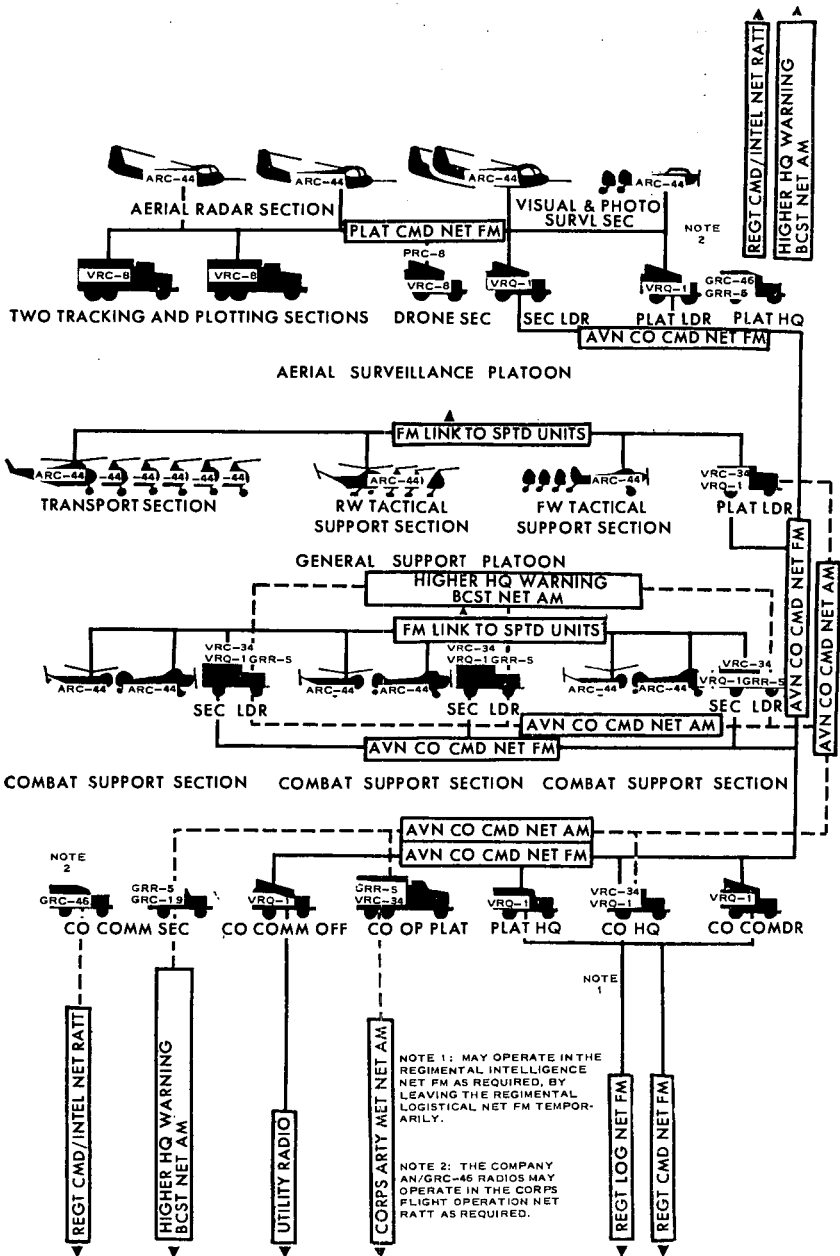


Figure 15-2. Radio net, armored cavalry regiment aviation company.

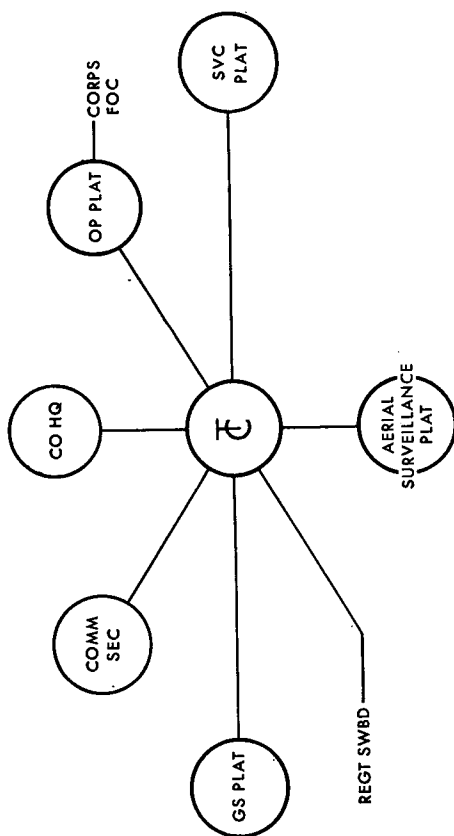


Figure 15-3. Wire net, armored cavalry regiment aviation company.

- (2) *Communications chief.* The communications chief assists the communications officer in the performance of his duties, and supervises the enlisted men of the section.
- (3) The senior switchboard operator and switchboard operator install, operate, and maintain the company wire net. The intermediate speed radio operator and the radio teletype operator establish, operate, and maintain stations in the AM radio and radio teletype nets of higher headquarters. The GCA repairman, senior radio mechanic, and radio mechanic perform 2d echelon maintenance on the GCA radar and radio equipment employed by company elements.

d. *Employment.*

- (1) *Principles of employment.* The communications section operates adjacent to the company headquarters in the operations section at the regimental base airfield. The section installs and maintains wire from the base airfield to the flight elements which are retained under company control at or in proximity to the base airfield. Operator and maintenance personnel of the section perform scheduled preventive maintenance on all communications equipment of the company, provide 2d echelon repair service as required on an on-call basis and coordinate with the supporting signal maintenance unit in obtaining required field maintenance support for the signal equipment assigned.
- (2) *Factors affecting employment.* The communications section is not designed to install wire or wire substitute communications from the base airfield to flight elements of the company, particularly the combat support sections attached or in direct support of various elements of the regiment when these elements are not in proximity to the base airfield. Maximum use must be made of existing communications facilities to establish communication with these elements.

15-11. Aerial Surveillance Platoon

a. *Mission.* The aerial surveillance platoon, employing drones and manned aircraft, performs visual observation, radar, and radiological surveillance, daylight oblique and vertical photography, and night vertical photography in general support of the units of the armored cavalry regiment.

b. Organization. The aerial surveillance platoon consists of platoon headquarters, visual and photo surveillance section, drone section, aerial radar section, and two tracking and plotting sections.

c. Duties of Personnel.

- (1) *Platoon headquarters.* The platoon commander is responsible for command and control of all elements of the platoon.
- (2) *Visual and photo surveillance section.*
 - (a) *Section commander.* The section commander pilots one of the aerial vehicles and, therefore, has a dual function. In addition, he organizes and supervises the performance of visual and photo surveillance missions for all elements of his section.
 - (b) *Aviators.* Aviators perform missions within the visual and photo surveillance section as assigned by the section commander.
 - (c) *Air observers.* Air observers perform missions within the visual and photo surveillance section as assigned by the section commander.
- (3) *Aerial radar section.*
 - (a) *Section commander.* The section commander is responsible for the operation and supervision of the aerial radar section, to include radar surveillance support to the armored cavalry regiment.
 - (b) *Aviators.* Aviators perform missions as directed by the section commander.
- (4) *Drone section.*
 - (a) *Section commander.* The section commander is responsible for the operation and supervision of the drone aircraft and allied launching and control equipment within the section. He is responsible for the coordination of the drone section with other elements of the surveillance platoon.
 - (b) *Section chief.* The section chief assists the section commander and supervises the drone system operators.
- (5) *Tracking and plotting section (2).*
 - (a) *Team chief.* The team chief is responsible for the tracking and plotting equipment organic to the section, and the tracking and positioning of piloted and drone aircraft for the armored cavalry regiment.

(b) *Senior radar operator.* The senior radar operator is responsible for the operation, repair, and maintenance of all assigned radar equipment within the section.

d. *Employment.* All elements of the aerial surveillance platoon except the tracking and plotting sections and the drone section are normally located at the aviation company base airfield. The tracking and plotting sections and the drone section normally operate from forward positions to permit guidance of manned aircraft and drones to maximum ranges. The platoon can be employed in whole or in part under the operational control of one or more of the squadron commanders.

15-12. Combat Support Sections

a. *Mission.* The mission of each combat support section is to provide direct support aviation to each of the armored cavalry squadrons of the armored cavalry regiment.

b. *Duties of Personnel.*

(1) *Section commander.* The combat support section commander acts as the aviation adviser to the armored cavalry squadron commander. All aviation support assigned to the section for a particular mission is commanded by the combat support section commander. He plans, with the armored cavalry squadron commander, the use of all aviation elements, and utilizes aviators assigned to his section as required.

(2) *Aviators.* Aviators perform missions assigned by the combat support section commander.

c. *Employment.* The combat support section is attached to or placed in direct support of the armored cavalry squadron. Each section operates from a flight airfield in the armored cavalry squadron area.

15-13. General Support Platoon

a. *Mission.* The general support platoon augments the capabilities of the combat support sections and provides general support to the regiment.

b. *Organization.* The general support platoon consists of platoon headquarters, fixed wing tactical support section, rotary wing tactical support section, and the transport section.

c. *Duties of Personnel.*

(1) *Platoon headquarters.* The platoon commander super-

vises all elements of his platoon. He also assists and provides staff depth to the operations section.

(2) *Fixed wing and rotary wing tactical support sections.*

(a) *Section commander.* The section commander is responsible for the operation of his section and support of the regimental aerial transportation and reconnaissance operations. He is responsible for providing the regimental headquarters staff officers and combat unit commanders with tactical transportation.

(b) *Section chief.* The section chief assists the section commander in providing tactical fight support to all elements of the regiment.

(3) *Transport section.*

(a) *Section commander.* The section commander is responsible for operation of the transport section in resupply and troop lift for the armored cavalry regiment.

(b) *Section chief.* The section chief assists the section commander.

d. *Employment.* Platoon headquarters is normally located adjacent to the operations platoon at the regimental base airfield. The tactical support sections normally operate from the base airfield in proximity to the general support platoon headquarters. Elements of these sections, which provide support to the subordinate headquarters within the regiment, operate from helicopter sites located at these headquarters and return to the base airfield at the termination of their attachment or as dictated by operational requirements. The transport section operates from the base airfield, but may be deployed to other temporary locations during support operations. Elements may also be attached to the combat support sections.

15-14. Service Platoon

a. *Mission.* The service platoon performs organizational aircraft maintenance and airfield service at the base airfield, operates the company motor pool, and performs wheeled vehicle maintenance. All maintenance records, schedules, and reports are compiled by this platoon.

b. *Organization.* The service platoon consists of platoon headquarters, an aircraft maintenance section, and an airfield service section.

c. Duties of Personnel.

(1) Platoon headquarters.

- (a) Maintenance officer.* The maintenance officer is responsible for the operation of the aircraft maintenance section and the airfield service section in providing the necessary personnel, supervision, and administration in the maintenance and service area. He has technical responsibility for all organizational maintenance of the aviation company aircraft, establishing and maintaining runway lights, servicing organic and transient aircraft, and crash-fire operations.
- (b) Platoon sergeant.* The platoon sergeant assists the maintenance officer.

(2) Aircraft maintenance section.

- (a) Aircraft maintenance supervisor.* The aircraft maintenance supervisor is responsible for the organization, operation, and maintenance of company aircraft. Normally second echelon organizational maintenance facilities are available at the base airfield.
 - (b) Repair supervisor.* The repair supervisor assists the aircraft maintenance supervisor.
- (3) Airfield service section.*
- (a) Section chief.* The section chief is responsible for setting up and maintaining portable runway lights, servicing of organic aircraft, servicing and parking of transient aircraft, and the operation of fire and crash equipment.
 - (b) Crash rescue specialist.* The crash rescue specialist assists the section chief.

d. Platoon Employment. All elements of the service platoon are normally located at the base airfield. The platoon is organized and equipped to permit maintenance teams to be attached to sections operating from forward flight airfields. Field maintenance support is provided by supporting transportation corps aircraft maintenance elements.

Section IV. MARCHES, BIVOUACS, AND ASSEMBLY AREAS

15-15. Marches

The aviation company is 100 percent mobile when using its organic aircraft and wheeled vehicles, and may move independ-

ently or as part of a larger unit. Moves are made upon instruction from the parent regiment or higher headquarters.

15-16. Bivouacs

The aviation company requires passive defense measures and coordination with the parent unit for mutual security support. An advanced party, usually from the company headquarters and operations platoon, precedes the company to select specific landing areas and to make administrative arrangements required for the company bivouac.

15-17. Assembly Areas

When the armored cavalry regiment occupies an assembly area, the aviation company and its elements will establish a base airfield and other necessary support airstrips and landing sites. Thorough prior reconnaissance will insure areas providing adequate dispersion, cover, and concealment for all elements of the company.

Section V. ADMINISTRATION

15-18. Personnel

a. Commanders will insure that all aviators maintain their flight proficiency in rotary wing and/or fixed wing aircraft as appropriate.

b. Personnel administration is the responsibility of the aviation company commander, assisted by the first sergeant. Guidance and assistance in personnel administration can be obtained from the armored cavalry regiment S1.

15-19. Supply and Maintenance

a. Supply.

- (1) Aviation company organizational supply personnel are assigned to the service platoon headquarters. The company requisitions parts, supplies, and equipment through regiment and, in turn, the appropriate technical service.
- (2) The company stocks only those parts and supplies authorized by appropriate supply manuals and applicable TA.

b. Maintenance.

(1) Organizational maintenance.

- (a) 1st echelon maintenance of aircraft and other equip-

ment is performed by personnel assigned to the various sections of the aviation company wherein the equipment is located.

- (b) The company aircraft maintenance section performs 2d echelon maintenance of wheeled vehicles and aircraft and assists the operating sections as necessary.
 - (c) Radio mechanics and necessary test equipment and tools are assigned to the aircraft maintenance section for 2d echelon organizational maintenance of avionics equipment.
 - (d) Organizational maintenance of radios is accomplished by three radio mechanics assigned to the communications section. This section also has a radar repairman responsible for 2d echelon maintenance of the GCA and the homing beacon. A radar mechanic is assigned to each tracking and plotting section for maintenance of the surveillance radars.
 - (e) Organizational maintenance of the drone aircraft airframes is accomplished by the personnel located in the drone section of the aviation company.
- (2) *Field maintenance.*
- (a) Field maintenance of equipment organic to the Armored Cavalry Regiment Aviation Company is the responsibility of the appropriate technical service.
 - (b) TOE 55-457 Transportation Aircraft Maintenance Company, Direct Support, provides 3d echelon maintenance of Army aircraft including drones assigned to the aviation company. This includes field maintenance, recovery of damaged aircraft, and issue of aircraft parts and equipment.
 - (c) Field maintenance support for the electronics equipment of the aviation company will be provided by the Signal Forward Supply and Maintenance Company TOE 11-157.
1. For field maintenance of aircraft installed electronics and associated ground based aviation electronic equipment, an avionics maintenance team of the supporting signal maintenance unit will operate either at the base airfield or at the site of the supporting Transportation Corps Direct Support Field Maintenance Company as required.

2. Field maintenance of tactical communications equipment and other common use signal items will be provided by appropriate repair sections or teams of the supporting signal maintenance unit.

Section VI. TRAINING*

15-20. Individual and Section Training

a. The aviation company will normally be assigned personnel who have received individual basic training and have been awarded a specialist MOS through completion of a course of instruction at a service school. The appropriate ATP will be used as a basis for continued individual training.

b. Continuous training by section, platoon, and as a unit must be conducted to achieve proper standards of efficiency. Commanders and leaders at each level of the aviation company are responsible for such training.

15-21. Training With Supported Units

a. Personnel assigned to the company normally will be service-school trained. Individual and section training follow the same general pattern. The company commander has command responsibility for training of individuals and sections.

b. The company will coordinate closely with the regimental S3 to organize programs to train observers and indoctrinate personnel in the proper utilization and employment of the aviation company in support of the regiment.

c. Elements of the company, particularly elements of the combat support sections which habitually support the same squadron, normally will conduct training with that squadron. Elements of the general support platoon and the aerial surveillance platoon are integrated into field exercises.

d. For further information on aviation unit training, see FM 1-100.

* For general principles, see chapter 1.

FOREWORD

In preparing this manual, it was accepted that tables of organization and equipment on Army aviation units are changing and will continue to change as the concepts and experience of employing Army aviation grow. It was also accepted that every detail of this manual may not be current and that changes to it, despite looseleaf format, may never be entirely abreast of the detailed changes which will occur.

However, the importance of having a single manual covering the organizations and employment of Army aviation is considered valid for the reason that commanders and staff officers will find herein the essential principles of employing Army aviation dynamically according to unit characteristics, capabilities, and limitations. Decision and leadership, not correct nomenclature, will assure maximum use of these units in nuclear and nonnuclear combat. Without a comprehensive understanding of organizational concepts of these units, their employment value would be problematical.

Hence, this manual provides for aviation units now in existence, and for which a finalized TOE organization has been approved. Those who use it should bear its limitations in mind, supplementing it as necessary from other sources. Every effort will be made to keep it current.

[AG 353 (12 May 59)]

By Order of *Wilber M. Brucker*, Secretary of the Army:

MAXWELL D. TAYLOR,
General, United States Army,
Chief of Staff.

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R. V. LEE,
Major General, United States Army,
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USA ATB (2)	Units org under fol TOE:
USCONARC (25)	1-7 (5) 51-15 (5)
US ARADCOM (5)	1-17 (5) 55-56 (10)
US ARADCOM Rgn (5)	1-57 (5) 55-57 (5)
OS Maj Comd (10)	1-107 (5) 55-102 (10)
Log Comd (5)	1-117 (5) 55-109 (5)
MDW (5)	1-127 (5) 55-456 (5)
Armies (10) except	1-137 (5) 55-457 (5)
First USA (12)	1-207 (5) 55-458 (5)
Corps (10)	5-55 (5) 55-467 (3)
Div (10) except	5-167 (5) 55-468 (3)
Armd Div (25) (5 ea CC)	6-501 (3) 55-469 (3)
Brig (5)	6-601 (3) 55-477 (3)
Regt/Gp/bg (5)	8-27 (3) 55-478 (3)
Bn (2)	8-29 (5) 55-479 (3)
Inf Co (1)	8-581 (3)

NG: State AG (3); TOE 5-35 (1), 5-192 (1), 6-125 (1), 6-135 (1), 6-315 (1), 6-325 (1), 6-401 (1), 6-415 (1), 6-435 (1), 6-501 (1), 6-515 (1), 6-575 (1), 7 (1), 11-15 (1), 11-117 (1), 17 (1), 20-45 (1)

USAR: Same as Active Army.

For explanation of abbreviations used, see AR 320-50.

FIELD MANUAL

No. 1-5

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C., 29 May 1959

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CHAPTER 1

GENERAL

Section I. PURPOSE AND SCOPE

1-1. Purpose

This manual describes in detail the organization and methods of employment of Army aviation units. The objective is to furnish the commander and staff of an aviation unit with internal guidelines for day-to-day operational requirements and to relate these requirements to flexible conditions of employment.

1-2. Scope

a. This manual covers all Army aviation units assigned or attached within a type field army. When used with FM 1-100, coverage is in sufficient detail to guide aviation commanders and staff officers in accomplishing all requirements of aviation employment to include mission, organization, operation, and training.

b. The internal characteristics and operations of aviation units are treated in terms of known and tested doctrine wherever possible. The material presented herein is applicable without modification to nuclear and nonnuclear warfare.

c. This manual is closely related to the general concepts discussed in FM 1-100.

Section II. MISSION AND PRINCIPLES OF EMPLOYMENT

1-3. Mission

The mission of Army aviation is to expedite and facilitate the conduct of Army operations. Specifically, Army aviation units are equipped and trained to provide commanders with a significantly greater capability for—

- a. Mobility and maneuverability.
- b. Command control and communications.
- c. Observation, reconnaissance, and target acquisition.

1-4. Principles of Employment

Army aviation support is available throughout the field army, but like other means of combat support, there is never enough to

satisfy all requirements. As a result, the principles of employment outlined below must be understood and applied by all commanders to maximize the effect of available aircraft.

a. Freedom of Utilization. The division aviation companies, the air ambulance companies, and the specialized sections in nondivisional units have been assigned to units which have a continuing requirement for that support. Higher echelon commanders should exercise no more control over organic aviation of subordinate units than is exercised over other elements of that unit.

b. Ready Availability. In applying the preceding principle, maximum value from both organic unit and Army transport aviation can be obtained only if the aircraft are physically located as close as possible to probable areas of employment. Since the primary concern of Army aviation is to support tactical operations, unit aviation should be positioned at the convenience of the using agency.

c. Economy of Utilization. Because of the high initial cost and the extensive maintenance required on aircraft, commanders must be constantly alert to insure that the aircraft are used in the most economical manner.

Section III. MARCHES, BIVOUACS, AND ASSEMBLY AREAS

1-5. Marches

a. A successful march, properly planned, places personnel and equipment at the desired destination with ample time to accomplish the mission. Planning begins with a map or chart reconnaissance, and the collecting of information concerning the supported and supporting units. It terminates when the last element has reached its destination. Basic considerations for planning are—

- (1) *Map reconnaissance.* Both primary and alternate air and ground routes are chosen where practicable. If an extended march is required, consideration must be given to intermediate bivouac areas, availability of POL for both wheeled vehicles and aircraft, and distance between service points.
- (2) *Ground reconnaissance.* Air and ground reconnaissance are usually combined and accomplished by a reconnaissance-type helicopter, when available. Factors such as road condition, bridges, and principle road intersections are noted.

b. March discipline to include sanitation and attention to distance, speed, good driving, and security must be stressed on all marches. Detailed techniques of motor movements are covered in

FM 25-10. Road clearance, when necessary, must be obtained from appropriate headquarters.

c. Movement of aircraft is normally made by platoon or section flights with a time interval between flights to facilitate refueling and placement at the bivouac area. The trail aircraft of each flight should have special tools, parts, and maintenance personnel aboard.

d. Coordination of the march between ground and air transported elements must include preplanned arrangements for refueling aircraft, and for organization of the airfield during intermediate halts as well as at the destination.

e. Because of the employment of aviation units, special consideration for each movement must be given to the organization of the unit at the time of movement. When assigned or attached to other organizations, flights (sections, platoons) will normally move with those units. Coordination must be effected with subordinate elements for each move. Conversely, when a subordinate element displaces with its supported unit, the same coordination must be effected with the parent unit.

f. Each unit will have a standing operating procedure covering marches (both air and motor), to include loading plans for each element. Loading plans must be flexible to expedite organization of the unit at the time of the movement.

g. For basic doctrine governing troop movements, see FM 100-5; for technical and logistical data, see FM 101-10.

h. More detailed information on the reconnaissance, selection, occupation, and organization of airfields and landing areas is covered in FM 1-100.

1-6. Bivouacs

A bivouac is a rear area where troops rest and prepare for further movement. Although the possibility of contact with the enemy is remote, except by air, normal security measures are taken.

a. Selection. Bivouac areas should be tentatively selected by map reconnaissance. Final selection and placement of the unit elements is accomplished by the air/ground reconnaissance party. Considerations affecting the selection and occupation of the area include—

- (1) Size.
- (2) Adjacent units and headquarters.
- (3) Suitable landing area.
- (4) Road nets.
- (5) Hardstands.
- (6) Maintenance area space.

b. Organization. Organization of the area is begun upon arrival of the advance party and improvement is continued as long as the area is occupied. Generally, both flight and ground crews should be bivouacked as close to the aircraft as possible.

c. Defense. Special attention must be given to the passive and active defense of the bivouac area. Considerations include—

- (1) Camouflage.
- (2) Cover and concealment.
- (3) Dispersion.
- (4) Security plan of adjacent units.

d. Communications. As soon as the physical layout of the area is determined, communications must be established with the supported unit.

1-7. Assembly Areas

An assembly area is an area where units assemble to organize and complete preparations for operations, or to regroup after a movement. In this area, the unit services and repairs vehicles and aircraft, and resupplies and feeds troops.

a. Aviation units are responsible for locating an area suitable for an airfield and large enough for dispersal of aircraft.

b. Desirable characteristics of assembly areas include—

- (1) Concealment from air and ground observation.
- (2) Cover from direct fire.
- (3) Good exits and entrances, and adequate internal roads or trails.
- (4) Ample space for dispersal of vehicles, aircraft, personnel, and equipment.
- (5) Adequate communication sites.

c. Overhead concealment is desirable for the unit's aerial and motor vehicles and other equipment, and for entrances and exits necessary to prevent enemy detection.

d. Security in assembly areas is obtained by tactical disposition of troops, concealment, use of natural and artificial obstacles, local security measures, reconnaissance, and the establishment of blocking positions and observation or listening posts covering all critical terrain features and likely avenues of approach. Assembly areas in advance of friendly troops require more security measures than those in the rear of friendly troops. However, every area, regardless of location, must have adequate security.

e. In addition to internal security, security measures should be

developed by close liaison with nearby elements of the supported unit for inclusion in the security plan of the supported unit.

f. Considerations affecting the selection of an airfield within an assembly area include—

- (1) Sufficient area to provide safe landing and takeoff.
- (2) A surface hard enough to permit safe operation.
- (3) Prevailing winds.
- (4) Obstacles and approach routes.
- (5) Gradient of landing area and drainage.
- (6) Vulnerability to nuclear attack.

Section IV. ADMINISTRATION

1-8. Personnel

Personnel management in aviation units corresponds to that of other units of similar size.

a. Personnel are assigned to aviation units through normal channels. Aviation special staff officers must coordinate with personnel officers for proper utilization of personnel.

b. Proper personnel management is achieved by staff officers and commanders taking a personal interest in the background, assignment, training, special skills, and supervision of each individual assigned to the command.

c. For more detailed information on personnel channels for the various type aviation units, see chapters 2 through 12.

d. Additional information concerning personnel functions and procedures can be obtained from FM's 19-40, 19-90, 101-1, and 101-5.

1-9. Supply

The requirement for logistical support of an aviation unit varies directly with its mission and organization. Basically, the supply procedure is the same as that of the parent and/or supported unit.

a. Aviation units generally maintain two supply channels; namely, the normal operational channel for all classes of supplies, and a technical channel for supplies of aviation items. AR 735-35 governs the procedure used in aviation resupply.

b. Supply of aircraft, parts, components, expendables, and the evacuation of nonflyable aircraft is the responsibility of the supporting TAAM unit. Replacement of nonflyable, damaged or destroyed aircraft is dependent on the TAAM's maintenance load, allowable repairs (AR 750-1500-4), and available replacements.

Unit spare parts are determined on the basis of usage factors. Aircraft shot down or disabled behind enemy lines are disposed of by prior disposition plans or as the existing tactical situation dictates.

c. The supply of class IIIA items (Army aviation POL) is through established supply channels. Procedures are those of the parent and/or supported unit.

1-10. Maintenance

This paragraph is primarily concerned with aircraft maintenance. However, all aviation units have organic vehicles and are responsible for their maintenance. Motor vehicle maintenance is accomplished in accordance with current Army and parent unit directives.

a. Maintenance on aircraft is performed at three primary echelons: organizational, field, and depot.

- (1) Organizational maintenance is performed by using unit personnel and is limited by the skill of personnel, available tools, repair parts, time available, and such other restrictions which may be imposed by the commander.

- (2) Field maintenance is performed by the supporting TAAM unit. They are governed by the factors in (1) above and AR 750-1500-4. Field maintenance is the responsibility of the field army commander.

- (3) Depot maintenance is the responsibility of the U. S. Army Transportation Corps.

b. Close coordination between unit maintenance officers and supporting field maintenance facilities is mandatory to facilitate speedy maintenance.

c. Most organizations provide one crew chief for each aircraft. This crew chief is responsible for most organizational maintenance, and works with and supervises unit maintenance personnel when they perform maintenance on his aircraft.

d. Established maintenance procedures will normally be followed. However, to minimize maintenance requirements for an operation, TB AVN 23-10 permits change of components, when prescribed hours of operation exceed time in use factors established therein, and prior to components becoming unserviceable.

Section V. TRAINING

1-11. General

a. Training of personnel and aviation units is continuous. Cross-training, unit and section training, individual, and specialist training are conducted concurrently with normal operations.

b. FM 21-5 and FM 21-6 should be used as a guide for the principles and techniques of training. Minimum standards are established by appropriate Army training tests (ATT's). As time permits, individuals and sections should be given general instructions of personnel and techniques of other individuals and sections of the unit. This would include pilot transition in all aircraft and cross-qualification of airplane and helicopter mechanics. The need for widespread dispersal of aircraft and sections necessitates some knowledge of all types of Army aircraft maintenance and service techniques.

c. Unit training is conducted in accordance with directives of higher headquarters. Army training programs (ATP's) provide guidance in the preparation and conduct of unit training. The ATP specifies the subjects to be covered, hours to be allotted to each subject, scope of instruction, and recommended sequence for presentation of instruction. Special training for pilots is discussed in FM 1-100.

1-12. Individual Training

a. The large demand for specialists in aviation units dictates the need of individual specialist training by appropriate service schools. Normally, personnel have received school training prior to assignment; however, it may be necessary for the unit to supplement this by extensive on-the-job training (OJT) programs. This can be accomplished only by close command supervision and the cooperation of appropriate personnel agencies.

b. Advanced individual training qualifies the soldier in the skills and knowledge required to effectively perform the duties of his position. This training may be divided into two general categories:

- (1) *General training.* This type training provides the individual with a knowledge of the organization, mission, and functions of the unit, and of the Army in general.
- (2) *Specialist training.* Specialist training is conducted to qualify the individual to perform the duties required by his assignment within the company. Maximum use should be made of schools conducted by higher headquarters for training of unit specialists. Specific directives for each specialist are outlined in appropriate Army subject schedules, AR's and FM's.

c. The need for command supervision cannot be overemphasized. Only by a thorough understanding of aims and goals can a unit hope to achieve the best results. The constant evolution of flight technique, meteorology, navigation and employment of Army aviation requires a sustained individual training effort.

1-13. Section Training

a. Section training has one goal—teamwork. Diversity of missions and capabilities of an aviation unit, require that individual and organization training be supplemented. This applies particularly to sections with a specialized purpose. Whenever possible, aviation units are committed as a whole, and this requires teamwork. To be able to operate individually is both desirable and necessary, but to operate as a unit requires training and practice.

b. The objectives of section and unit training are prescribed in appropriate ATP's and ATT's, and these should be used to guide the training programs. The status and experience of individuals will directly affect the results of section training; therefore, individual, section, and unit training must be conducted concurrently.

c. Higher headquarters will normally provide units with a prescribed schedule of training and will direct participation in suitable maneuvers and field exercises. This is the test of the effectiveness of section training.

d. All sections of a unit are required to operate under as many varying conditions as possible. FM 1-100 should be consulted for further details and suggested procedures.

1-14. Training With Supported Units

a. Aviation staff officers and unit commanders have the responsibility of familiarizing supported arms and services with the capabilities and limitations of Army aviation.

b. Training of aviation units to support other organizations requires close liaison with the supported arm or service, and a thorough understanding of the supported force mission.

c. Training of the supported force in aviation techniques and procedures is accomplished only by close liaison and coordination with the training program of the supported unit. Normally, the aviation unit will assume complete responsibility for this training. This can be achieved by actively training appropriate personnel of the ground unit, such as air observers, and by a continuing program of indoctrination and orientation on the utilization and employment of Army aviation. When appropriate, sections will habitually train with units which they continually support, e.g., a combat support flight of the division aviation company habitually trains with only one battle group of the division.

d. Training with other arms and services is best achieved during training exercises and maneuvers. Whenever possible, aircraft should actively participate. Ground personnel concerned should be

given orientation flights for familiarization, and to facilitate the transition of ground mobility to that of aerial mobility. This joint training will greatly expedite the successful accomplishment of the mission of both units.

e. Missions and roles that should be included in, but not be limited to, joint training are observation training; aerial movement of supplies; command, liaison, and communications; aerial evacuation of casualties; airlift of troops; and air mobility for land reconnaissance.

CHAPTER 2

ARMY AVIATION COMPANY

To be published.

CHAPTER 3
HEADQUARTERS AND HEADQUARTERS DETACHMENT,
TRANSPORTATION AVIATION GROUP

To be published.

CHAPTER 4

HEADQUARTERS AND HEADQUARTERS DETACHMENT, TRANSPORT AIRCRAFT BATTALION

Section I. GENERAL

4-1. Purpose

This chapter provides training guidance for officers and non-commissioned officers of the headquarters and headquarters detachment, transport aircraft battalion, and necessary guidelines for each unit commander to employ his company, platoon, or section.

4-2. Scope

This chapter discusses in detail the organization and employment of this unit, by placing emphasis on each element of the detachment.

4-3. Mission

The mission of this unit is to provide command, control, staff planning, and administrative supervision for two to seven transport aircraft companies.

Section II. ORGANIZATION

4-4. Composition

The composition of the headquarters and headquarters detachment, transport aircraft battalion, is shown in figure 4-1.

4-5. Assignment

The headquarters and headquarters detachment, transport aircraft battalion, is assigned to a field army.

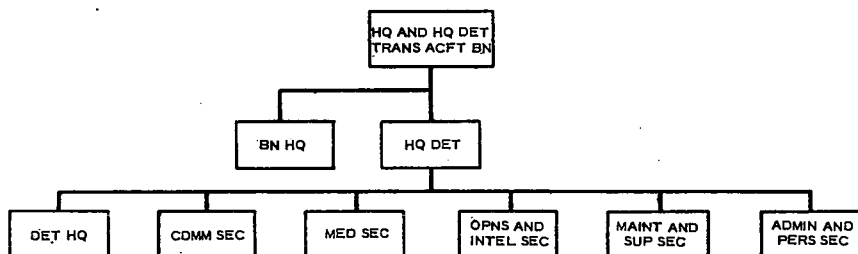


Figure 4-1. Headquarters and headquarters detachment, transport aircraft battalion (TOE 55-56D).

4-6. Capabilities and Limitations

a. This unit performs the following functions:

- (1) Plans and supervises the employment of from two to seven attached or assigned transport aviation companies.
- (2) Supervises the maintenance and logistical functions of assigned or attached units.
- (3) Provides medical support to the battalion headquarters and subordinate aviation companies.

b. This organization can be adapted to operate with reduced personnel and equipment during prolonged noncombat periods or for limited periods of combat.

c. The unit has limited capability of defense against hostile ground and air attack; however, individuals of this unit, except medical personnel, can fight as infantrymen when required.

d. The headquarters and headquarters detachment, transport aircraft battalion, is authorized only those aircraft and wheeled vehicles which are habitually required for day-to-day operations. Since this unit does not have sufficient mobility for movement or displacement, aerial and/or vehicular transportation will be furnished by attached or assigned aviation companies. However, when aerial transportation is not feasible, ground transportation will be required. Headquarters and headquarters detachment is only 50 percent mobile.

e. The detachment does not have an organic mess capability and is usually satellited upon one of its attached companies for this service.

4-7. Planning and Coordination

a. The transport aviation unit commander and the supported unit commander begin detailed planning together when they receive the implementing directive. Their considerations include, but are not limited by, the following factors:

- (1) Type and duration of the mission as a basis for determining the number of aircraft and the special equipment needed.
- (2) Communications to include communication between aircraft, the tactical unit, and the pathfinder unit in the objective area.
- (3) Navigational aids to include the number, type, and method of employment.
- (4) Operations of extended duration for which additional maintenance personnel and facilities may be needed at the

loading area, refueling point, or landing zone, to perform limited aircraft maintenance.

- (5) Intelligence, to include detailed information of the weather (including long-range forecast), the enemy (ground and air capabilities), the terrain (at loading areas, along flight routes, and at landing zones), and maps and aerial photographs.
- (6) Use of the airhead as a base for further airlanded operations (logistical or tactical), and the amount of engineer support required for sustained operations; e. g., improvement of landing strips.
- (7) Aviation equipment and personnel organic to the supported unit that may be employed in both the training and operational phases.
- (8) IFF procedures and air traffic control measures.
- (9) Coordination with Army air defense.

b. The transport commander prepares the necessary plans to accomplish the unit's mission. These plans are developed concurrently with the airlanded force commander's plans and are disseminated to the members of his command before the transport aviation unit moves to the landing area. They include (in addition to instruction in the airlanded force commander's plan) the—

- (1) Designation of flight leaders and the units to be supported by each.
- (2) Composition of flight units by aircraft strength based on the airlanded force commander's plan.
- (3) Location of landing and loading sites.
- (4) Location of refueling facilities and instructions for their use.
- (5) Schedule for movement to the loading area.

c. For a detailed coverage on transport aviation, see FM 57-35.

Section III. SECTION EMPLOYMENT AND OPERATIONS

4-8. General

a. A type transport aircraft battalion consists of a headquarters and headquarters detachment; 3 transportation companies, rotary wing, light transport; 1 transportation company, rotary wing, medium transport; and 1 aviation company, fixed wing, light transport. However, the battalion headquarters is capable of command and control of a battalion composed of two to seven homogeneous companies or any combination of rotary and fixed wing companies.

b. The battalion may be assigned or attached to a field army. The aviation battalion headquarters will function as the tactical and control headquarters for the employment of attached or assigned transport aircraft companies.

4-9. Battalion Headquarters

a. *Mission.* The battalion headquarters is organized to provide command, control, and administrative supervision of assigned and attached units, as well as internal administration.

b. *Organization.* The battalion headquarters contains the command and control personnel of the battalion. They are the battalion commander, executive officer, S1, S3, and S4, aviation medical officer, two liaison officers, and a battalion sergeant major. These personnel provide supervision for the normal staff sections in the tactical headquarters. Minimum personnel are provided for liaison duties with supported units but may be augmented by liaison personnel from attached or assigned aviation companies.

c. *Equipment.* Command vehicles, aerial transportation equipment, communications equipment, and other mission equipment for the battalion commander and staff are found in the appropriate sections of the headquarters detachment.

d. *Duties of Personnel.*

- (1) Normal command and staff duties are performed by the battalion headquarters personnel. The key officers include the battalion commander, executive officer, S1, S3, S4, maintenance officer, and communications officer. For detailed duties, see FM 101-5.
- (2) The aviation medical officer is a staff officer and commands the medical section. He advises the commander and staff on the health of the command, and he exercises technical supervision over medical training in the battalion. He coordinates with S4 on evacuation, sanitation, and the location of the battalion first aid station. He is responsible for the following functions:
 - (a) Care of flying personnel, with consideration for specific problems inherent to flying.
 - (b) Initiation of a preventive aviation medical program to preserve maximum individual and unit efficiency.
 - (c) Advice to responsible commanders and boards of officers concerning medical aspects of aviation problems.
 - (d) Development of improved policies and procedures concerning aviation medical functions.
 - (e) Initiation of a nuclear effects training program.

(3) The battalion liaison officer establishes liaison between the battalion and supported units, the air defense artillery in the area of operations, and acts as advisor to the supported commander on the employment of Army aircraft. Liaison duties are not restricted to liaison officers specifically appointed as such, but may be performed on occasion by any staff officer. A staff officer making a visit to another headquarters is, in effect, also performing liaison duties. Provisions for liaison with supported units are minimum and may be augmented by liaison personnel provided by attached or assigned aviation companies. Duties of a liaison officer are—

- (a) Prior to his departure for a unit, he must fully understand his mission and be familiar with the tactical situation of his own unit and the unit to be visited. He should then obtain proper written credentials, unless obviously unnecessary, and insure that arrangements for communication are adequate.
- (b) Upon arrival at the supported headquarters, he should report to the commander (or an appropriate staff officer), present his credentials, and state his mission. He must then familiarize himself with the unit and make arrangements for securing information required by his mission and for transmitting this information to his own unit.

e. Employment. The transport aircraft battalion may be employed either as a unit, or by individual companies, or by a combination of its assigned or attached elements. The battalion headquarters will be established near the base airfield of one of its subordinate elements, preferably the fixed wing company. For tactical operations, representatives from battalion headquarters will establish a planning staff at the supported unit command post.

(1) *Principles of employment.*

- (a) Each aviation mission or operation must contribute to the ultimate objective of the supported unit in the most direct, rapid, and economical manner possible. Advice to the supported unit commander by the unit commander regarding proper utilization and allocation of aircraft will materially contribute to the effective application of this principle.
- (b) Army aviators and Army aviation units are trained for combat and combat support operations.
- (c) All aviation operations, plans, and orders must be simple to understand and execute.

- (d) The battalion is organized, so that the available aviation effort can be massed at the critical time and place to achieve its objective.
- (e) The principle of maneuver exploits the technique of positioning forces in relation to the enemy to achieve minimum cost in men and materiel. Battalion organization and the capability of its aircraft to operate from unimproved areas enable it to move quickly and easily to provide immediate availability to maneuvering forces.
- (2) *Factors affecting employment.* Important factors affecting employment of the battalion include—
 - (a) Coordination between all units and individuals directly or indirectly involved in a battalion operation.
 - (b) Battalion employment to permit decentralized execution of functions. Although the aviation effort must be centrally controlled within the command, support elements of the battalion must be capable of operating for and with supported units.
 - (c) Vulnerability of battalion aircraft to enemy ground fire and enemy aircraft.
 - (d) Terrain and weather to include the availability of locations for airfields, cover and concealment for aircraft and personnel, the probable effect of weather on flying, and conditions of visibility.
 - (e) Status of attached units to include strength in personnel and equipment, state of training, and the supply situation (e. g., fuel, lubricants, and spare parts).
 - (f) Type and duration of operation.

f. Security.

- (1) The primary means of defense for Army aircraft (both in the air and on the ground) is passive. Effective passive defense hinges on security measures which will prevent surprise, reduce enemy annoyance, preserve freedom of action, and retain for the commander the ability to effectively employ his forces. Since organic firepower and personnel are limited, the battalion will require extensive use of passive defense measures for airfield sites.
- (2) The battalion commander is responsible for passive defense measures, which include camouflage, camouflage discipline, concealment, and dispersion. All available airfields will be used to assure adequacy of aircraft dispersal under conditions of nuclear warfare. Aerial movements must be scheduled to prevent aircraft concentrations at one site.

A successful passive defense depends upon dispersion in time and/or space of all equipment and personnel.

g. Special Operations. See FM 1-100.

4-10. Headquarters Detachment

a. Mission. The headquarters detachment provides enlisted personnel for the battalion staff sections. In addition, it provides company-level administration, administrative support of battalion headquarters, and certain battalion-level services for attached or assigned units.

b. Organization. The headquarters detachment consists of detachment headquarters, administrative and personnel section, operations and intelligence section, communications section, medical section, and maintenance and supply section. Personnel are provided in these sections to operate the battalion headquarters.

- (1) Detachment headquarters consists of the detachment commander, first sergeant, and other personnel required to support the detachment. Their function is similar to that of any headquarters company.
- (2) The administrative and personnel section contains the personnel officer, personnel sergeant, and personnel specialists and clerks for the S1 section.
- (3) The operations and intelligence section contains the assistant S3, operations sergeant, intelligence specialist, and sufficient personnel to operate the S2 and S3 sections of the battalion headquarters.
- (4) The communications section contains the communications chief and all wire, radio, and message center personnel of the battalion.
- (5) The medical section contains enlisted personnel and an ambulance. Under the direction of the battalion aviation medical officer, this section provides medical support to the battalion headquarters and subordinate aviation companies.
- (6) The maintenance and supply section consists of the aviation maintenance officer, supply officer, motor maintenance sergeant, aviation maintenance supervisor, and clerical and administrative personnel as shown in the current TOE 55-56. The section is designed to assist the S4 in the accomplishment of his duties.

c. Equipment. See current TOE 55-56. Aircraft required to meet the day-to-day flight requirements of the battalion headquarters are organic to the detachment headquarters.

- (1) One utility airplane transports the battalion commander, staff, and staff specialists as required for battalion headquarters mission accomplishment.
- (2) Three reconnaissance helicopters provide a rotary wing flight capability into or from areas inaccessible to fixed wing aircraft.

d. Personnel.

- (1) *Detachment headquarters.* The personnel of detachment headquarters are the same as in any other detachment (commander, first sergeant, etc.) and perform normal detachment duties.
- (2) *Administrative and personnel section.* The personnel officer is acting adjutant and is charged with the preparation, maintenance, and safekeeping of all records, documents, correspondence, and statistics of a personnel and administrative nature. He supervises the activities of the personnel sergeant and the personnel specialists.
- (3) *Operations and intelligence section.*
 - (a) *Assistant S3.* The assistant S3 performs duties as directed by the S3 and acts in his place when the S3 is absent.
 - (b) *Operations sergeant.* The operations sergeant assists the operations officer in scheduling, and planning aircraft support; he determines availability of aircraft and aircrew flying requirements; schedules flights for unit aircraft and maintains air operations map; prepares and maintains records and reports on flight operations activities, or supervises such work; maintains NOTAM file.
 - (c) *Intelligence sergeant.* The intelligence sergeant assists the operations officer in collecting, analyzing, integrating, and disseminating intelligence information. He plans and organizes work schedules, assigns duties, and instructs subordinate personnel in proper work techniques and procedures.
 - (d) *Senior movements specialists.* The senior movements specialists assist the operations officer in formulating recommendations in planning, coordinating, programming, and controlling the movement of personnel and materiel by air, and performs related administrative duties in the operation of the S3 section. He compiles reports for dissemination to higher, lower, and adjacent headquarters concerning transportation situations, requirements, and performance.

- (e) *Other personnel.* The movements specialist, clerk typist, and driver perform their specialized duties.
- (4) *Communications section.*
 - (a) *Communications chief.* The communications chief is directly responsible to the communications officer for all phases of signal communications. He—
 1. Supervises the installation, operation, and maintenance of all communications nets (figs. 4-2 and 4-3) and equipment.
 2. Supervises all communications personnel and assigns duties to meet varying workloads.
 3. Insures that personnel are properly trained in job assignments, and conducts classes to maintain the highest possible degree of section efficiency.
 4. Installs, inspects, tests, and repairs field or fixed radio transmitting and receiving equipment.
 5. Performs radio preflights on aircraft assigned to the unit.
 6. Maintains and repairs communications equipment installed in aircraft.
 - (b) *Intermediate-speed radio operator.* The radio operator installs and operates field radio communications equipment.
 - (c) *Teletype operator.* The teletype operator operates manual teletypewriter for transmitting and receiving messages.
 - (d) *Senior wireman.* The senior wireman lays wire, and installs and maintains telephones.
 - (e) *Senior switchboard operator.* The senior switchboard operator supervises the installation and maintenance of switchboard and associated equipment.
 - (f) *Switchboard operator.* The switchboard operator installs, operates, and maintains switchboard and all associated equipment.
 - (g) *Wireman.* The wireman assists the senior wireman in the performance of his duties.
 - (h) *Truck driver.* The truck driver performs duties as directed.
- (5) *Medical section.* Enlisted medical personnel of this section assist in the care of the sick and injured, keep records, and prepare reports and correspondence. This section furnishes emergency medical treatment, operates a battalion aid station, evacuates patients from dispersed elements of the battalion to the battalion aid station, and provides medical supervision of sanitation within the battalion.

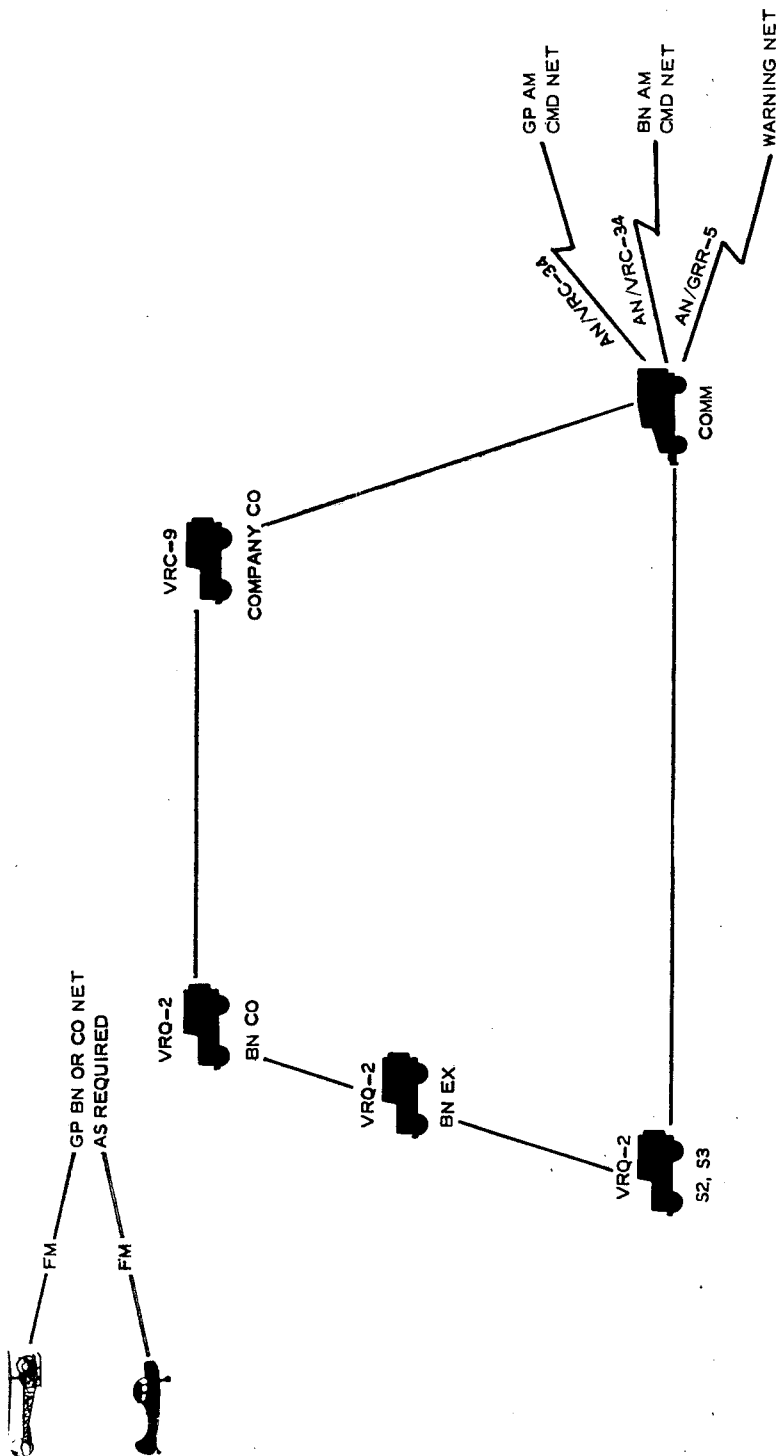


Figure 4-2. Radio net, headquarters and headquarters detachment, transport aircraft battalion.

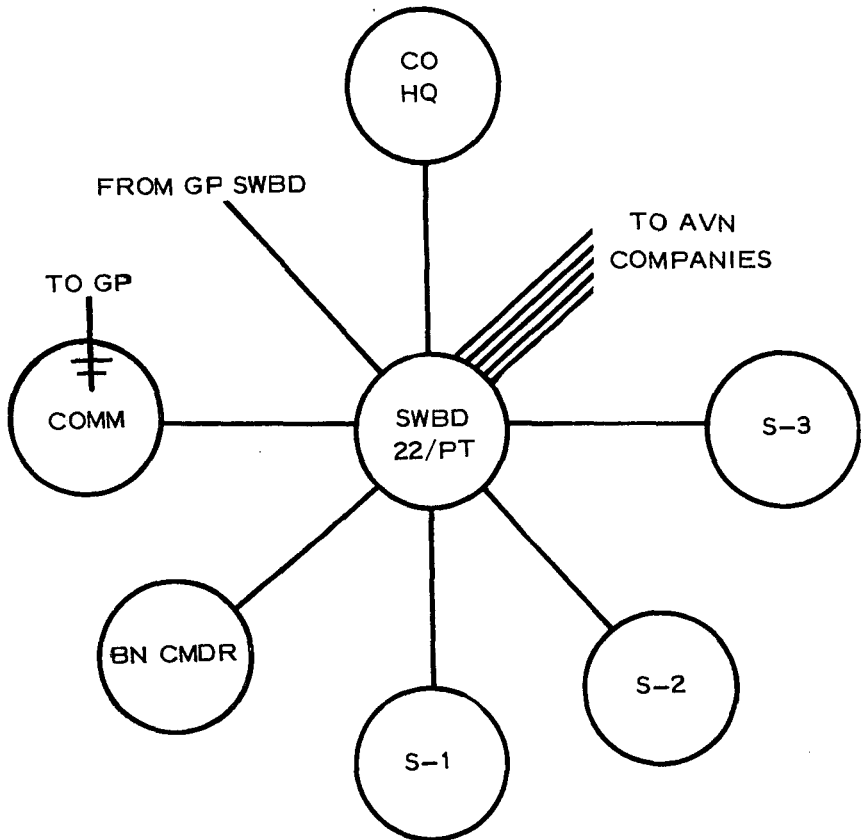


Figure 4-3. Wire net, headquarters and headquarters detachment, transport aircraft battalion.

(6) *Maintenance and supply section.*

- (a) *Aviation maintenance officer.* The aircraft maintenance officer advises the commander and staff on capabilities of maintenance units to meet current and projected workloads. He plans and schedules replacement and improvement of facilities based on availability of resources and requirements for increased services; maintains liaison with aviation operating units to determine effectiveness of aircraft maintenance support; conducts inspections to determine status of training, condition of facilities, operational readiness, and effectiveness of maintenance units; and establishes maintenance policies and procedures by preparing or directing the preparation of implementing directives.
- (b) *Supply officer.* The supply officer directs packing, loading, unloading, storage, inspection, and distribution of

supplies. He directs checking of requisitions for conformity with tables of allowances, directs and controls the taking of inventories, keeping of stock records, estimation of requirements, and preparation of reports and requisitions.

- (c) *Motor maintenance sergeant.* The motor maintenance sergeant performs organizational maintenance on wheeled vehicles and associated accessories and equipment. He assists in administrative and operational duties in organizational maintenance motor pool.
- (d) *Maintenance supervisor.* The maintenance supervisor works directly for the maintenance officer. He assists in the supervision of administrative maintenance files and maintenance activities throughout the command. He advises company maintenance personnel on latest procedures and techniques, and accompanies the maintenance officer during command and technical inspections. He maintains files and records on status of maintenance within the command, to include a status board.
- (e) *Transportation parts supply sergeant.* The transportation parts supply sergeant edits and examines requisitions to determine correctness of nomenclature, quantity, authorization for issue, and availability. He maintains stock record cards and files regarding receipt or issue of spare parts. He also requisitions supplies and equipment to maintain authorized stock levels.
- (f) *Technical inspectors.* Technical inspectors act as advisors on mechanical aspects of fixed and rotary wing aircraft maintenance.
- (g) *Other personnel.* The supply specialist, supply clerk, typist, and truck driver perform their specialized duties.

e. Employment. See paragraph 4-8b.

f. Security. The headquarters detachment commander, in addition to his other duties, may serve as headquarters commandant for the command post. He is responsible for the organization, security, and movement of the command post in coordination with battalion S2, S3, and under the supervision of the battalion executive officer. Local security forces will consist generally of personnel assigned to the battalion. When warranted, combat elements may be assigned to strengthen the local security forces. The type combat forces assigned depends on the nature of the threats, characteristics of the terrain, and availability of forces.

g. Special Operations. See FM 1-100.

Section IV. MARCHES, BIVOUACS, AND ASSEMBLY AREAS*

4-11. Marches

The battalion headquarters and headquarters detachment is 50 percent mobile when utilizing all organic vehicles and aircraft. When aerial transportation is not feasible, the appropriate transportation unit will provide additional wheeled vehicles as required. The entire headquarters displaces only when required by the situation or when the battalion is assigned a long range operation.

4-12. Bivouacs and Assembly Areas

a. Headquarters detachment will go into bivouac as directed by group or higher headquarters. Maximum use of passive defense measures will be required at all times.

b. Assembly areas will be utilized as required, especially on long motor marches. Thorough advance planning will insure proper POL and maintenance support. Aircraft of the headquarters detachment are normally used to reconnoiter bivouac and assembly areas for the battalion headquarters and organic companies.

Section V. ADMINISTRATION*

4-13. Personnel

The Transportation battalion personnel officer is responsible for personnel assignments to the headquarters detachment. The detachment commander is responsible for personnel administration of detachment personnel.

4-14. Supply

a. The staff of battalion headquarters has the normal staff responsibility for logistical support for companies of the battalion. Reports and requests to appropriate sections of group headquarters and supporting technical services follow established supply procedures.

b. The headquarters detachment will follow normal supply procedures for Army aviation units.

4-15. Maintenance

The maintenance and supply section of the headquarters detachment will follow normal maintenance procedures.

* For general principles, see chapter 1.

Section VI. TRAINING*

4-16. Individual and Section Training

The detachment commander is responsible for training the sections within the headquarters detachment. Officers of the operations and intelligence section will normally be given additional duties as training officers.

4-17. Training With Supported Units

Headquarters detachment will participate in field training exercises to support battalion headquarters. The headquarters detachment will provide the support required to conduct familiarization and/or orientation instruction in the battalion.

* For general principles, see chapter 1.

CHAPTER 5

AVIATION, FIXED WING, LIGHT TRANSPORT COMPANY

Section I. GENERAL

5-1. Purpose

This chapter is a guide for commanders and personnel of the aviation fixed wing light transport company in the performance of their duties and the accomplishment of the company mission.

5-2. Scope

It provides information concerning mission, organization, employment, capabilities and limitations, administration, and training in sufficient detail to afford the company and element commanders necessary guidelines for day-to-day operation.

5-3. Mission

The mission of the company is to provide air transport to expedite tactical operations and logistical support in the combat zone. This mission includes but is not limited to the following:

- a. Moving reserves, particularly for a mobile defense or for defense on a wide front.
- b. Resupplying ground units with food, water, ammunition, and light equipment.
- c. Air movement for concentrating dispersed forces in preparation for a tactical operation.
- d. Moving reconnaissance forces and patrols.
- e. Supplemental aeromedical evacuation.
- f. Aerial transportation for commanders and staff.
- g. Air movement of specialist teams.
- h. Establishing local air traffic control and terminal facilities at loading and unloading areas.
- i. Aerial photography.
- j. Aerial observation, reconnaissance, and terrain study.
- k. Rendering technical assistance to the tactical commander on all matters pertaining to the aviation unit's organization and employment.

Section II. ORGANIZATION

5-4. Composition

The composition of the aviation fixed wing light transport company, is shown in figure 5-1.

5-5. Assignment

This company is assigned to the field army and is normally attached to a headquarters and headquarters company, transportation transport aircraft battalion.

5-6. Capabilities and Limitations

a. Capabilities.

(1) At full strength, this unit provides the following facilities within the army area:

- (a) Tactical aerial mobility and aerial supply of combat forces in the combat zone.
- (b) Operation of the transport aircraft battalion base airfield under day, night, and limited visibility conditions.
- (c) Establishment of local air traffic control and terminal facilities at loading and unloading areas.
- (d) Transport of troops and/or supplies, within 100-mile radius, under day, night, or limited visibility conditions—

- 1. One hundred seventy-six combat troops or 20 tons of supplies, with all aircraft available and operating.
- 2. One hundred thirty-two combat troops or 15 tons of supplies during sustained operations dependent upon aircraft availability.
- 3. Eleven combat troops or 1¼ tons of cargo per available aircraft.

- (e) Movement of specialist teams, critical items, and critical supplies and parts.
- (f) Aeromedical evacuation.

(2) At reduced strength, the capabilities listed in (1) (d) above are reduced to—

- (a) One hundred thirty-two combat troops or 15 tons of supplies with all aircraft available and operating, or
- (b) Ninety-nine combat troops or 11 tons of supplies during sustained operations, dependent upon aircraft availability.

(3) The capabilities of a Type B organization are the same as those of a full strength organization.

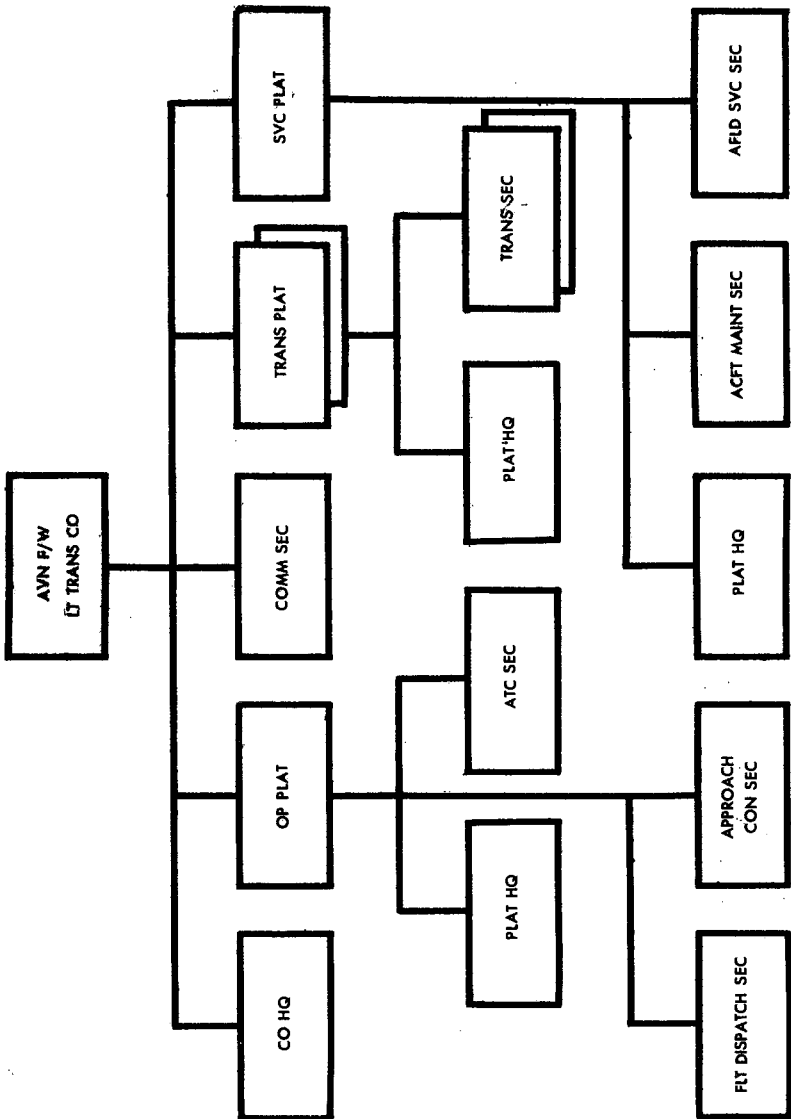


Figure 5-1. Aviation fixed wing light transport company (TOE 1-10T (tentative)).

- (a) The type B column adapts this TOE to the lesser requirements for United States military personnel. Vacancies existing in the Type B column are indicative of the types of positions which can be filled by non-United States personnel. The number of non-United States personnel must be determined by the major commander to which the unit is assigned and will depend upon capacity of available personnel to produce, number of shifts, and other local conditions.
 - (b) Interpreters and translators required when organized under the Type B column will be provided from appropriate teams available to the Theater Commander.
 - (c) Authorization of United States military personnel shown in the Type B column may be modified by troop basis proponents as required by local area conditions of employment in order to enable the unit to effectively accomplish its mission WAB DA.
- (4) Individuals of this unit can fight as infantrymen, when required. This unit has the capability of defending itself and its installations against hostile ground attack.

b. Limitations.

- (1) In sustained operations, aerial lift capabilities are reduced (usually 25 percent), dependent upon the duration of the operation.
- (2) Landing areas must be almost flat. Longer and more improved landing areas are required for airplanes than for helicopters.
- (3) Hail, sleet, icing, heavy rains, and gusty winds may limit or preclude fixed wing operations.
- (4) A wind velocity above 10 knots normally limits the selection of the direction of approach and landing.
- (5) A more thorough reconnaissance of the landing site must be provided for fixed wing aircraft than for helicopters.
- (6) Command of the air and suppression of enemy ground fire are needed to insure success of the operation.

5-7. Planning and Coordination

a. The success or failure of a mission is directly related to the extent and thoroughness of planning and coordination between the supported and supporting commanders. The company commander and the supported unit commander begin concurrent planning, when they receive the warning order. This directive may be oral or fragmentary in the early stages of planning. A complete written order

is usually issued later, or it may appear in the annex to the operations order from higher headquarters, dependent upon where the order originates. If the operation is urgent, the order may be oral.

b. Tactical planning and logistical considerations for an airlanded operation increase with the size of the transported force and nature of the objective. Since an airlanded operation is more complex and critical than a comparable ground tactical operation, planning must be as detailed as time permits. Planning should begin immediately upon receipt of the warning order. It will continue until movement to the loading sites is begun. Timing is critical in terms of changing weather conditions, security, and exploitation through surprise.

c. The supporting commander establishes and maintains liaison with the supported unit. Liaison officers act as technical advisors in all matters pertaining to their respective units.

d. The supporting company commander prepares and disseminates instructions to members of his command for carrying out their support missions. He develops these instructions concurrently with the airlanded force commander's plan and disseminates them before the company moves to the loading area. The supporting commander, through his subordinate leaders, will insure that each pilot and all other participating personnel are informed of the plan of operation and those particular phases which affect their operations to minimize confusion and to enable individual pilots to adjust rapidly to deviations from the original plan. Instructions must be simple and to the point. They must include (in addition to instructions in the airlanded force commanders plan) the—

- (1) Designation of flight leaders and the unit(s) to be supported by each.
- (2) Composition of flight units by aircraft strength, based on the airlanded force commander's plan.
- (3) Location of loading and landing sites.
- (4) Location of refueling facilities and instructions for using them.
- (5) Schedule for movement to the loading area.

Section III. SECTION EMPLOYMENT AND OPERATIONS

5-8. Company Headquarters

a. *Mission.* The mission of the company headquarters is to provide command and administration for the company, and supervision of operations, maintenance, supply, and training.

b. Organization. The company headquarters contains the company commander, executive officer, first sergeant, mess steward, supply sergeant, motor sergeant, and sufficient personnel to perform the administrative, vehicular maintenance, and mess functions of the company.

c. Equipment. See current TOE 1-107.

d. Personnel. The fixed wing company is organized like any other company-sized unit, with a commander, executive officer, and first sergeant, and mess, supply and motor sergeants. Duties performed are normal company duties.

e. Employment.

(1) *Principles of employment.*

- (a) The company is usually assigned or attached to an aviation battalion and operates under control of the battalion commander. Normally, the company will be employed to provide backup transport of troops and/or supplies for units being lifted to the assault by the helicopter companies of the transport battalion.
- (b) The company may be employed as an integral unit in support of the battalion mission. However, flights from the company may be attached in support of subordinate units of the battalion.
- (c) In addition to employment with the battalion, the company may be attached for operational control to a corps and employed as corps troops. When employed as corps troops, the company may be further attached for operational control or placed in direct support of subordinate corps units for specific missions. Normally, the lowest echelon to which attachment will be made is battle group or combat command level.
- (d) Maintenance beyond the capability of the company is provided by the Army aircraft maintenance units (TAAM) supporting the battalion. Supply of aircraft spare parts, major components, expendables, and the evacuation of nonflyable aircraft are the responsibility of the supporting units.

(2) *Factors affecting employment.* The varied uses of transport aircraft may cause a larger usage demand than can be provided. The following factors must be considered in determining recommendations on the allocation of available transport aircraft.

- (a) The mission.

- (b) The number of airplanes available, cargo capabilities, range, state of maintenance, and supply status (especially fuel, lubricants, and spare parts).
- (c) Terrain characteristics in different parts of the area of operations.
- (d) Experience of both the transport aviation units and the ground units in conducting airlanded operations.
- (e) Effects of weather on transport aircraft operations and ground transport. The aviation officer utilizes the climatological report in early planning stages with long range forecasts (48 hours to 5 days), and short range forecasts (48 hours or less), and coordinates adjustments in the aviation support plan as required. Aviation weather forecasts are obtained from weather teams at the army or corps base airfields.
- (f) The capability of the enemy to interfere with the mission of the airplanes; i.e., the location of air defense artillery and automatic weapons, searchlights, radar or sound detectors, and electronic warfare devices.
- (g) Enemy capabilities for conducting all types of airborne operations during the execution of airlanded operations by friendly transport aviation and ground units.
- (h) The adequacy of communication systems for controlling airlanded operations.

f. Security.

- (1) Camouflage and natural foliage should be used at the loading areas and at the base airfield to avoid disclosure of the field's location and impending operations. Additional measures include radio silence and minimum use of lights at night.
- (2) Various techniques should be employed to assist in maintaining security during airlanded operations. A few of these techniques are—
 - (a) Firing artillery concentrations or aerial strikes along the flight corridor and adjacent to landing zones to neutralize enemy action.
 - (b) Bypassing known enemy installations.
 - (c) Approaching an objective area on the downwind side to reduce the enemy's early warning due to noise.

g. Special Operations. See FM 1-100.

5-9. Operations Platoon

- a. Mission.* When operating under centralized control, the oper-

ations platoon receives and processes requests for aircraft and performs required coordination with the appropriate flight operations center (FOC), operates a ground controlled approach section and air traffic control section.

b. Organization. This platoon contains the flight dispatch section, approach control section and air traffic control section. Minimum personnel to maintain base airfield operations elements on a 24-hour-a-day basis are provided. In addition to their other duties, officers from the flight platoon will be designated by the company commander as assistant operations officers. Any attached intelligence personnel normally work in this platoon.

c. Equipment. Equipment assigned to this platoon consists of personal weapons and equipment, desks, typewriters, filing cabinets, tents, etc. The platoon utilizes equipment assigned to other sections of the company which may affect its operations. Communications between the operations platoon and other company elements are provided by wire and/or radio equipment within the communications section. Normally, this platoon operates in the immediate vicinity of the command and administration section and the communication section.

d. Duties of Personnel. Personnel of this platoon will coordinate missions with the flight elements of the company.

(1) *Operation officer.* The operations officer assigns flights to the flight platoons and coordinates the activities of supporting elements within the company. He advises the commander on the availability of airplanes and crews, assists in planning company missions and the training of pilots, and coordinates with the service platoon on maintenance scheduling. To obtain maximum efficiency, the operations officer actively supervises the personnel in the operations section. He also acts as briefing and debriefing officer for the pilots.

(2) *Flight operations chief.* The flight operations chief assists the operations officer and the assistant operations officer in the performance of their duties. He supervises the issuance of parachutes and any other special equipment required for flights, the preparation of flight plans and manifests, and the maintenance of flight logs and records.

e. Employment.

(1) *Principles of employment.* The operations platoon is the center of company activity. Successful and economical utilization of flight missions is dependent upon continuous planning and coordination by operations personnel. Reports concerning availability and status of aircraft from

all company elements are received and processed through the operations platoon to effect accomplishment of mission requirements.

- (2) *Factors affecting employment.* Minimum personnel are provided for operation of the base airfield on a 24-hour basis. If more than one airfield is used by elements of the company, additional personnel will be required.

f. Security. The operations platoon will operate from the base airfield of the company and will be included in the airfield security plan.

g. Special Operations. See FM 1-100.

5-10. Communications Section

a. Mission. This section establishes communication nets for the company (figs. 5-2 and 5-3), and performs message center functions, switchboard operation, teletype operation, and electronic equipment repair.

b. Organization. The communications section contains the communications officer, communications chief, senior switchboard operator, switchboard operator, intermediate-speed radio operator, GCA equipment repairman, senior radio mechanic, radio mechanic, and wireman.

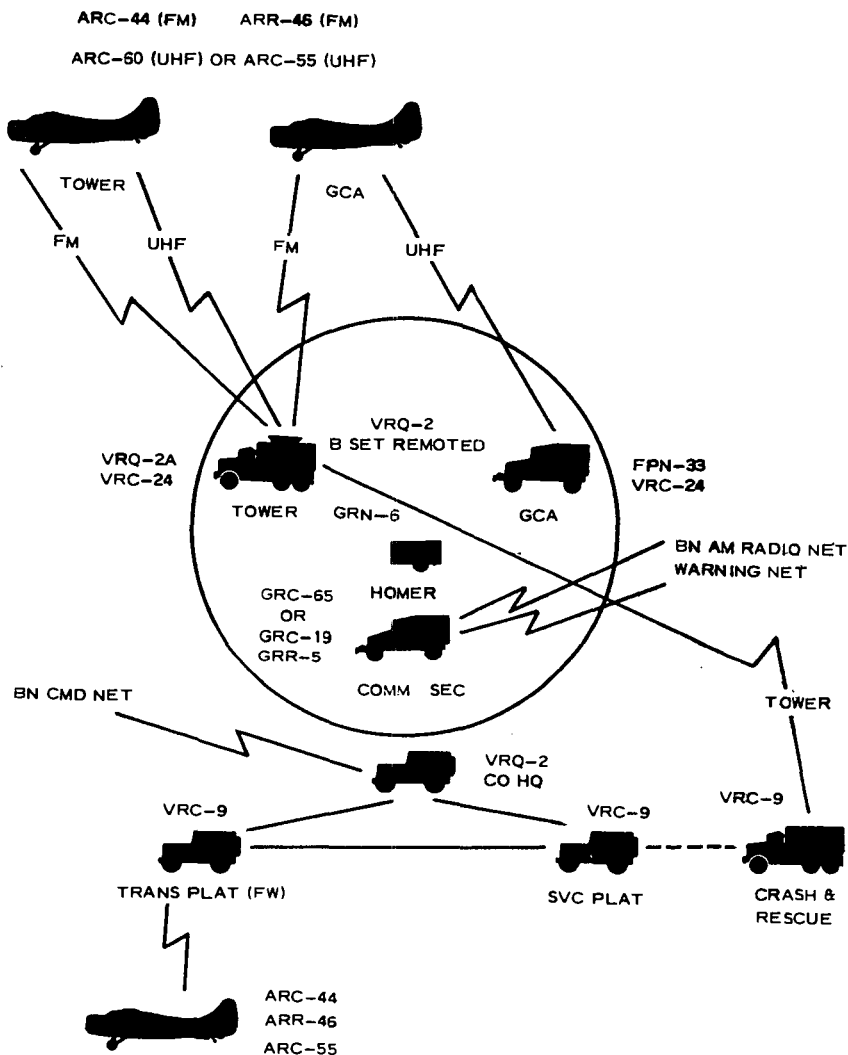
c. Equipment. See current TOE 1-107.

d. Duties of Personnel.

- (1) The communications officer advises and assists the commander with all matters pertaining to communications and aircraft control. He actively supervises the operation and maintenance of the section. He insures that the section personnel are adequately trained and proficient in their respective jobs.
- (2) The communications chief assists the airfield control officer in communication matters.
- (3) The remaining personnel of the section perform duties commensurate with their MOS titles.

e. Employment.

- (1) *Principles of employment.* The communications section will operate at the base airfield adjacent to the operations platoon. The section will install and maintain wire (fig. 5-3) on the base airfield and to flight elements retained under company control but operating from satellite airstrips close to the base airfield.



REMARKS:

- (1) 3 PRC-9 RADIOS IN HQ PLATOON OPERATE IN COMPANY NET AS DIRECTED.

- EXAMPLES
- (1) SERVICE PLATOON (GROUND PARTY)
 - (2) CRASH AND RESCUE (GROUND PARTY)
 - (3) SPECIAL ASSIGNMENT (SATELLITE FIELD)

- (2) CRASH AND RESCUE SET WILL NORMALLY OPERATE IN TOWER NET. MAY BE PLACED IN COMPANY NET IF REQUIRED.
- (3) AIRCRAFT CAN OPERATE IN ANY ONE OF THE FOLLOWING NETS AS DIRECTED:

FM TOWER
FM - GCA
FM NET OF SUPPORTED UNITS
UHF TOWER
UHF GCA

ARR-46 WILL CONSTANTLY MONITOR FOC WARNING NET.

Figure 5-2. Radio net, aviation fixed wing light transport company.

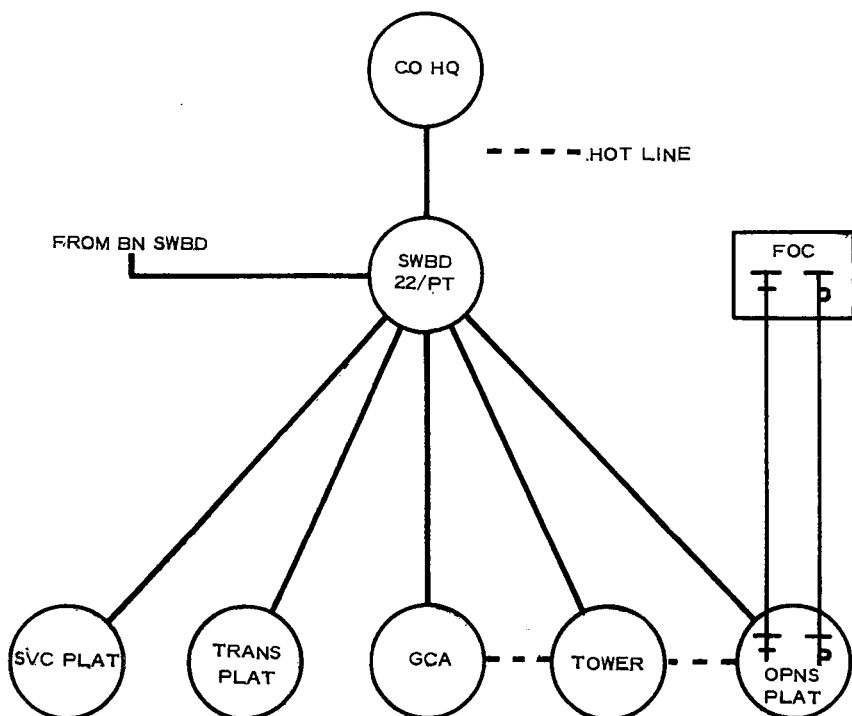


Figure 5-8. Wire net, aviation fixed wing light transport company.

- (2) *Factors affecting employment.* This section is not designed to install elaborate systems of wire communications. Maximum use must be made of existing communication facilities.

f. Security. See paragraph 5-8f.

g. Special Operations. See FM 1-100.

5-11. Transport Platoons

a. Mission. The transport platoons provide tactical and logistical air transport within the field army area.

b. Organization. Two organic transport platoons perform the company's missions. Each platoon consists of a platoon headquarters, which contains the platoon leader and a platoon sergeant, and two transport flights with assigned crews and crew chiefs.

c. Equipment.

- (1) *Platoon headquarters (2).* Each of the platoon headquarters has a $\frac{1}{4}$ -ton truck, with trailer, equipped with a radio set for communication within the company command net and with aircraft of the platoon.
- (2) *Transport flight (4).* Each transport flight has 4 light transport airplanes for a total of 16 within the company.

d. Duties of Personnel.

- (1) The platoon commander is the immediate supervisor of platoon pilots. He assigns their missions and duties. He insures that personnel and equipment assigned to the platoon are in a constant state of readiness to perform assigned missions. He designates first and second in command of individual flights and assigns other duties within his command.
- (2) The pilots perform the flight missions and other duties assigned by the platoon commander.
- (3) The platoon sergeant assists the platoon commander by supervising the assigned enlisted personnel. He insures that the platoon airplanes are refueled and that minor discrepancies are corrected before flights, and insures that any or all special equipment is aboard the airplane. He actively supervises loading and unloading of the airplanes and postflight inspections by crew chiefs.

e. Employment.

- (1) *Principles of employment.* Normally, the company will be employed to provide backup transport of troops and/or supplies for units being lifted to the assault by the helicopter companies of transportation battalions to which assigned. The company may be employed as an integral unit in support of the battalion mission; however, the transport platoons may be attached for operational control or placed in direct support of subordinate units of the battalion. When the company is attached to a corps and employed as corps troops, the transport platoons may be attached for operational control or placed in direct support of subordinate corps units for specific missions covering short periods of time.
- (2) *Factors affecting employment.* Transport platoons will be attached for operational control only to echelons of command capable of providing adequate communication and control facilities. This is normally at division level; however, for short periods of time, and on a mission basis, attachment can be at battle group and combat command level.

f. Security. When operating from the base airfield, the transport platoons are included in its security plan. When operating away from the base airfield, security must be provided by the supported unit.

g. Special Operations. See FM 1-100.

5-12. Service Platoon

a. Mission. The service platoon provides the company with aircraft parts and related supplies; establishes, supervises, and performs maintenance scheduling and quality control; and performs technical inspections and organizational maintenance.

b. Organization. The platoon consists of a platoon headquarters, a maintenance section, and an airfield service section.

- (1) The platoon headquarters contains the platoon commander, the platoon sergeant, a technical inspector, an aircraft parts specialist, a clerk typist, and a light truck driver.
- (2) The maintenance section contains a maintenance supervisor, an airframe repairman, 9 airplane mechanics, an electronics equipment repairman, a hydraulic system repairman, and 9 airplane mechanic helpers.
- (3) The airfield service section contains the airfield service chief, a crash-rescue specialist, a petroleum storage specialist, five airfield service crewmen, and a generator repairman.

c. Duties of Personnel.

- (1) The platoon commander serves as the company aircraft maintenance officer in addition to his duties as an element commander. As platoon commander, he is responsible for operations and training of the platoon. As company aircraft maintenance officer, he formulates and recommends company aviation maintenance procedures and policies to the company commander, and supervises all company aircraft maintenance and maintenance training. Officers of the flight platoons will be designated by the company commander as assistant maintenance officer, aircraft supply officer, or airfield service officer. These additional duties will be performed under the supervision of the service platoon commander.
- (2) The platoon sergeant assists the platoon commander in supervising platoon operation, and performs other duties as directed.
- (3) The technical inspector conducts technical inspections of all aircraft before, during, and after maintenance to insure that the quality control standards established by the unit commander are being met.
- (4) The aircraft parts specialist operates the company aviation supply. He requisitions, stores, and issues aircraft

parts and equipment, and maintains necessary forms and records in conformance with existing policies and directives.

- (5) The remaining members of the platoon perform duties commensurate with their MOS titles.

d. Employment.

- (1) *Principles of employment.* The service platoon will normally operate at the company base airfield as an integral unit. Maintenance is more efficiently and economically performed and downtime per aircraft is reduced to a minimum by maintaining integrity of the platoon at one location and pooling equipment, spare parts, and skills.
- (2) *Factors affecting employment.* The quantity and quality of maintenance and supply provided by the service platoon is governed by the technical skills of assigned personnel, by organic equipment, and by backup supply. Maintenance beyond the capabilities of the platoon and aircraft recovery is accomplished by the TAAM units in support of the battalion.

e. Security. The service platoon is included in the base airfield security plan and must furnish personnel to man defenses.

f. Special Operations. See FM 1-100.

Section IV. MARCHES, BIVOUACS, AND ASSEMBLY AREAS*

5-13. Marches

The aviation fixed wing light transport company is 50 percent mobile, and may move independently or as a part of a larger unit. Moves are made upon instructions from the parent battalion or higher headquarters.

5-14. Bivouacs

The company is organized in a manner to require passive defense measures and coordination with adjacent units for mutual security support. An advance party (usually from the company headquarters and operations platoon) precedes the company to select specific landing areas and to make administrative arrangements required for company bivouac.

5-15. Assembly Areas

The company normally works as a unit. Care must be taken

* For general principles, see chapter 1.

during reconnaissance prior to occupying an assembly area to insure that the area is adequate. Although an assembly area is usually unoccupied for a long period of time, the area selected should be capable of accommodating the entire company as a unit. The landing area and subsequent parking areas must be large enough to afford dispersion and some cover and/or concealment.

Section V. ADMINISTRATION*

5-16. Personnel

a. Many aviators assigned to the company will be dual rated. Commanders must take steps to coordinate with helicopter companies of the battalion, so that personnel may maintain their rotary wing qualifications.

b. Personnel administration is the responsibility of the company commander, assisted by the first sergeant. Guidance and assistance in personnel administration may be received from the battalion S1.

5-17. Supply and Maintenance

a. Company supply personnel are part of the service platoon headquarters. Established supply procedure is followed. Supply channels may go through battalion or, when the battalion is operating alone, direct to appropriate agencies.

b. The maintenance section is part of the service platoon. Crew chiefs are assigned for each airplane. The maintenance section supplements the crew chief functions with additional tools, skills, and equipment. Segments of the supporting TAAM unit will normally work directly with the company for field maintenance as required.

Section VI. TRAINING*

5-18. Individual and Section Training

a. The company will normally be assigned personnel who have received individual basic training and have been awarded a specialist MOS through completion of a course of instruction at a service school. The appropriate ATP will be used as a basis for continued individual training.

b. Continuous training by section, platoon, and as a unit must be conducted to achieve proper standards of efficiency. Commanders and leaders at each level of the company are responsible for their appropriate unit.

* For general principles, see chapter 1.

5-19. Training With Supported Units

a. The operations officer coordinates with the G3(S3) of the supported unit for familiarization and practice of loading, boarding, and dismounting of airplanes. This training should start with a detailed explanation of the capabilities and limitations of the equipment, crash procedures, and safety precautions while working near aircraft.

b. During actual airlift operations, close and continuous liaison must be maintained for thorough and coordinated planning.

CHAPTER 6

TRANSPORTATION COMPANY, ROTARY WING, LIGHT TRANSPORT

Section I. GENERAL

6-1. Purpose

This chapter provides guidance for commanders, staff officers, Army aviators, and other Army personnel concerned with the employment of a Transportation company, rotary wing, light transport.

6-2. Scope

This chapter covers mission, organization, employment, capabilities and limitations, administration, and training in sufficient detail to afford the company and element commanders with the necessary guidelines for day-to-day operation.

6-3. Mission

a. The Transportation company, rotary wing, light transport, provides air transport to expedite tactical operations and logistical support in the forward areas of a combat zone.

b. The company is equipped to provide necessary communications and terminal facilities for the operation of the unit heliport.

c. The company fights as infantry when required.

d. Examples of missions to be performed by the company are—

- (1) Day or night air transport for troops and/or cargo.
- (2) Supplemental aeromedical evacuation.
- (3) Air movement of specialist teams, critical items, critical supplies, and parts.
- (4) Liaison with tactical units.
- (5) Staff planning to include technical advice to the tactical commander of the supported unit in all matters pertaining to aviation unit capabilities and employment.

Section II. ORGANIZATION

6-4. Composition

The composition of the Transportation company, rotary wing,

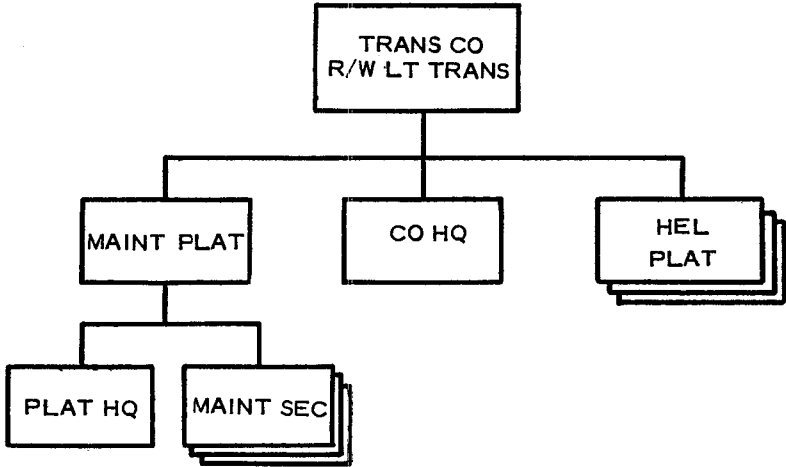


Figure 6-1. Transportation company, rotary wing, light transport, (TOE 55-57C).

light transport, is shown in figure 6-1. Radio and wire nets are as shown in figures 6-2 and 6-3.

6-5. Assignment

The Transportation company, rotary wing, light transport, may be assigned to a field army, a separate corps, or to a headquarters and headquarters detachment, transport aircraft battalion.

6-6. Capabilities

a. The tabulation below shows the maximum lift capabilities by load types of the light helicopter company in a single lift. For maximum effort, with all 21 cargo helicopters operating and available, the company can transport simultaneously any one of the type loads below within a 50-mile radius, from an elevation ranging from sea level to 1,000 feet.

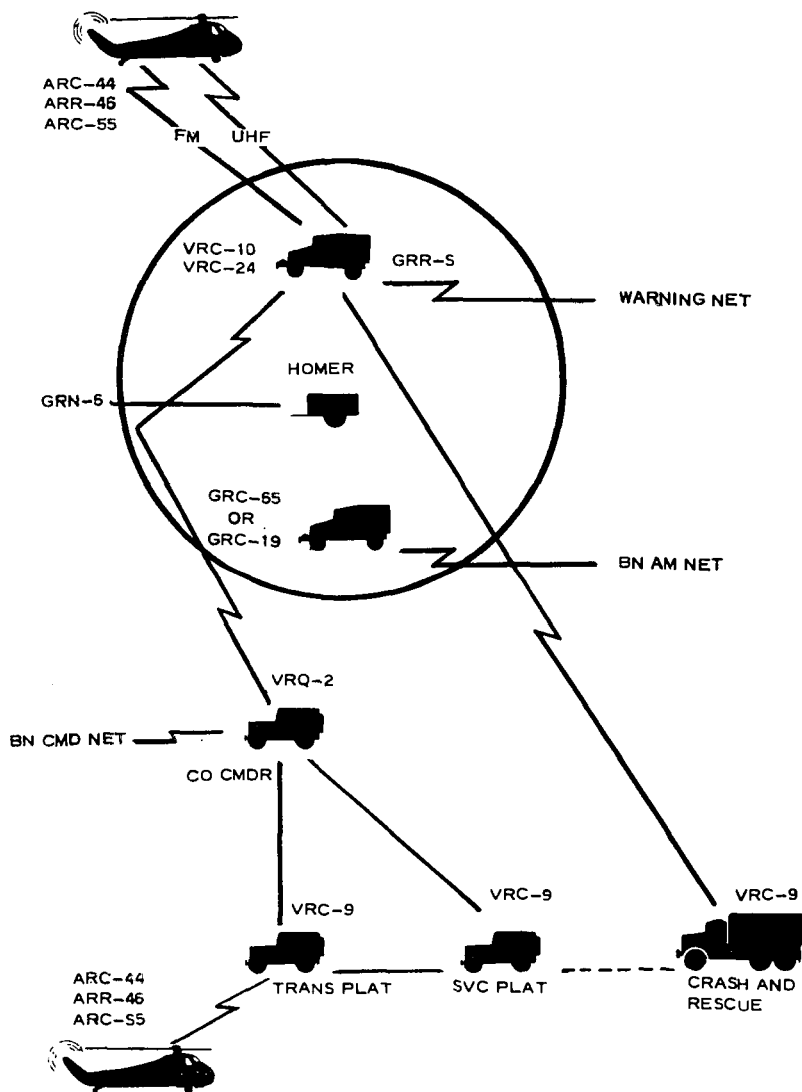
Type Helicopter	Troops Fully Equipped (240 lbs)		Cargo (Tons)		Litter Patients
H-34	252	or	31.5	or	168
H-21	252		31.5		252

b. For sustained operation, the above capabilities are reduced or adjusted by an aircraft availability factor which is determined by the length of the operation.

Note. Helicopter capabilities and limitations depend upon the variables of fuel, range, and payload. If one variable changes, at least one other will change also.

6-7. Planning and Coordination

a. Planning for missions performed by the light helicopter



REMARKS:

- (1) 3 PRC RADIOS IN HEADQUARTERS PLATOON OPERATE IN COMPANY NET AS DIRECTED.
 - (A) SERVICE PLATOON (GROUND PARTY)
 - (B) CRASH AND RESCUE (GROUND PARTY)
 - (C) SPECIAL ASSIGNMENT (SATELLITE FIELD)
- (2) CRASH AND RESCUE SET WILL NORMALLY OPERATE IN TOWER NET MAY BE IN COMPANY NET IF REQUIRED.
- (3) AIRCRAFT CAN OPERATE IN ANY ONE OF THE FOLLOWING NETS AS DIRECTED:

FM - TOWER	UHF - TOWER
FM - GCA	UHF - GCA
FM - NET OF SUPPORTED UNIT.	

ARR-46 WILL CONSTANTLY MONITOR AIR WARNING NET

Figure 6-2. Radio net, Transportation company, rotary wing, light transport.

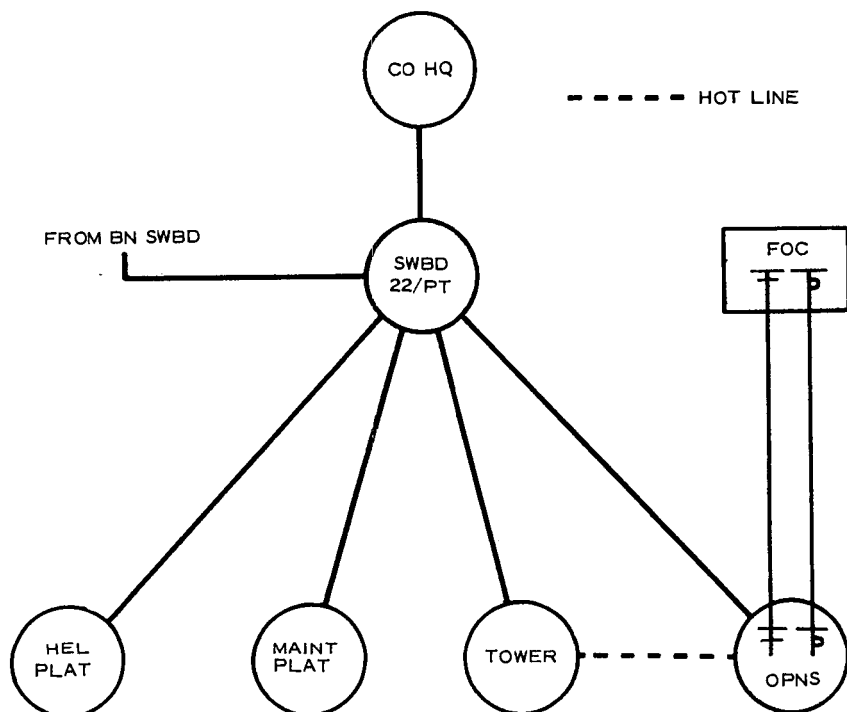


Figure 6-3. Wire net, Transportation company, rotary wing, light transport.

company is similar to planning for any other airlift. A pilot from the helicopter company, acting as liaison officer, flies to the supported unit in a reconnaissance helicopter and plans all aspects of the airlift with the supported unit commander. Their planning begins as soon as possible after receipt of the warning order and is developed in the following sequence—

- (1) The ground tactical plan, which includes determination of strength and composition of the forces required and development of a logistical plan to support the tactical plan.
- (2) The landing plan, which indicates the sequence, time, and place of arrival of troops and material.
- (3) The air movement plan, based on the landing plan.
- (4) The loading plan, based on the air movement plan.

b. Simplicity is the guiding principle in the preparation of airlanded operational plans.

c. Planning staffs of participating or planning commands plan concurrently to achieve maximum coordination and to reduce delay. Details of planning are given in FM 57-35.

Section III. SECTION EMPLOYMENT AND OPERATIONS

6-8. General

The company normally operates under the control of the transport battalion commander. It may be employed in mass with other companies of the battalion, or it may be attached to a corps and employed as corps troops. When employed as corps troops, the company may be further attached to or placed in direct support of subordinate corps units. Normally, this unit will not be attached below division level. Although the flight platoons may be attached to lower levels of command, this will not normally be below battle group or combat command level. The flight platoons are capable of operating independently from the parent unit for short periods of time.

6-9. Company Headquarters

a. Mission. The mission of company headquarters is to provide command, administrative, and flight operations control for the unit.

b. Organization. The section contains the company commander, operations officer (who may also act as executive officer), administrative assistant, first sergeant, aircraft operations sergeant, mess steward, supply sergeant, and sufficient personnel to perform the administrative, vehicular, communication, operation, and mess functions. The section is responsible for establishing local security for the base heliport, coordinating with the supported unit and/or adjacent unit for additional security personnel as required.

c. Equipment.

- (1) Vehicles are provided to transport the company commander, company supplies, the operations and communications equipment, and the company mess. All crew-served weapons of the company are assigned to this section for distribution according to organization and occupation requirements of the base heliport. Wire is the normal means of communication with other elements of the company.
- (2) Major items of equipment assigned are as shown in current TOE 55-57.

d. Personnel. The company commander is assisted by the administrative assistant and the first sergeant. When the situation requires, the company operations officer acts as the executive officer. Normally the operations officer functions just as any other operations officer, and is assisted by an aircraft operations

sergeant. The company headquarters has the normal company administrative personnel.

e. Equipment.

- (1) *Principles of employment.* The company is normally employed as a complete unit. However, it may be employed by platoon or section as the situation warrants. In general, the principles of employment of cargo helicopters can be encompassed in three broad headings: freedom of utilization, economy of utilization, and ready availability.
 - (a) *Freedom of utilization.* Commanders at echelons down to battalion level should be given instructions in the proper employment of helicopters. When a helicopter unit is placed in support of, or attached to a tactical unit, the commander of that unit should have sufficient freedom of action to employ the helicopters in a manner best suited to accomplish his mission. The commander of the attached helicopter unit will advise the commander of the unit to which attached of those limitations of the helicopters which might influence the operation or jeopardize the success of the mission.
 - (b) *Economy of utilization.* The large ratio of maintenance hours required for each flight hour demands strict control of flights to obtain maximum effort. Piecemeal commitments should be avoided or minimized. Careful and detailed planning should preclude the over-commitment of helicopters to specific missions. When not required for support, the helicopter company will accomplish necessary maintenance.
 - (c) *Ready availability.* To be of maximum value, helicopter units must be so located as to be readily available to commanders, where the greatest requirement for cargo helicopters is expected. Generally, this requirement will be in those areas where the existing routes and means of communication have failed or are inadequate. Front line units will often operate over terrain without road nets or with inadequate roads, and will thus require means to circumvent the surface routes. This in no way precludes the utilization of helicopter units in the corps or field army rear areas. Helicopter units assigned to the aviation battalion or corps may be attached for operational control or placed in direct support of a division.
- (2) *Factors affecting employment.* Some of the factors which affect the employment of the entire company are—

- (a) The mission.
- (b) The characteristics of the terrain.
- (c) The experience of transport aviation and ground units in conducting airlanded operations.
- (d) The size and type of mobile ground forces available for reconnaissance and security missions.
- (e) Enemy air and ground fires.
- (f) The capability of ground transport to meet requirements for the movement of units and for logistical support.
- (g) Enemy airborne operations.
- (h) The number of aircraft available, their cargo capacities, and range.
- (i) Weather.
- (j) Secrecy of operations.
- (k) Fire support plans.
- (l) The adequacy of communications systems for controlling airlanded operations over extended distances.
- (m) Airspace utilization plans.

f. Security. Internal security is a responsibility of the company commander. Security for company headquarters is provided by personnel of the headquarters section in addition to their TOE jobs as switchboard operators, company clerks, etc. Crew-served weapons will be emplaced to provide maximum benefit to the heliport. Adjacent combat units will provide additional personnel to maintain effective security.

g. Special Operations. See FM 1-100.

6-10. Helicopter Platoons

a. Mission. The three platoons normally operate from the immediate vicinity of the company base heliport. These platoons provide the tactical and logistical air transport capability of the company.

b. Organization. Each helicopter platoon consists of a platoon headquarters and two flight sections. The platoon headquarters consists of the platoon leader and his copilot. Each flight consists of the flight leader, his copilot, and four additional pilots. One maintenance section of the maintenance platoon works with the helicopter platoon to form an integral unit.

c. Equipment. Each flight platoon is equipped with seven light transport helicopters; each maintenance section has a 2½-ton refueling truck; a 2½-ton, 6x6 cargo truck, with 1 ½-ton trailer; and sufficient tools in the mechanics' tool set for day-to-day maintenance.

nance. The maintenance section is also issued a 250,000 BTU tent heater, a maintenance tent, and an organizational maintenance tool set.

d. Duties of Personnel. The platoon leader is responsible for the efficient operation of the platoon. He informs the operations officer on the state of proficiency and training of the pilots, and may act as his assistant. He normally makes mission assignments when less than the entire platoon is to fly. Two of the senior pilots act as flight leaders for the 2 flights of 3 aircraft each. Additional duties assigned to the pilots may include mess officer, supply officer, etc. When operating away from the base airfield, one maintenance section accompanies the platoon. Personnel of the maintenance section function as crew chiefs, mechanics, and petroleum dispensers. The senior NCO acts as flight line chief and supervises the maintenance of the seven helicopters.

e. Employment.

(1) *Principles of employment.* To carry out its support role, the platoon is organized and equipped to operate independently of the unit base heliport for short periods of time. When away from the base heliport, the platoon will be established in an area as close as practicable to the headquarters of the supported unit, and the personnel will utilize the mess and other facilities of the supported unit. Day-to-day maintenance is performed on the aircraft with tools assigned. Periodic aircraft inspections and replacement of components must be accomplished by evacuating the aircraft to the unit base heliport or by ferrying in personnel and necessary tools.

(2) *Factors affecting employment.* The platoon is not capable of operating independently for an extended period. When aircraft maintenance requirements cannot be met with the available tools, the aircraft must be grounded until the necessary equipment becomes available. Since the platoon has no mess facilities or communications equipment other than the radios in the aircraft, it must be located in the immediate vicinity of the supported unit.

f. Security. The personnel of the platoon provide the security for the platoon area by coordination with personnel of the adjacent unit. The members of the platoon utilize their individual weapons for the protection of the perimeter.

g. Special Operations. The platoon is capable of participating in all special operations. See FM 1-100.

6-11. Maintenance Platoon

a. *Mission.* The platoon provides aviation supplies, organizational aircraft maintenance, and base heliport service for the company. The mission of the platoon dictates that it operate from the base heliport in the immediate vicinity of the command, administration, and operations sections.

b. *Organization.* The maintenance platoon consists of a platoon headquarters and three identical maintenance sections. Within platoon headquarters are the supervisory personnel necessary to coordinate the activities of the maintenance sections, and procure the required aircraft components. Each maintenance section habitually supports one helicopter platoon. The sections contain the crew chiefs, mechanics, aircraft maintenance crewmen, and petroleum dispensers for the helicopter platoons.

c. *Duties of Personnel.*

(1) *Maintenance platoon headquarters.*

- (a) *Maintenance officer.* The maintenance officer is the maintenance platoon commander. He is responsible to the commander for the maintenance of transport and reconnaissance helicopters, wheeled vehicle maintenance, and the training of maintenance, crash-rescue, and technical supply personnel. He also advises the operations officer of aircraft availability, and plans estimates of future availability.
- (b) *Assistant maintenance officer.* The assistant maintenance officer assists the maintenance officer in all areas of his responsibility, works closely with the three flight line chiefs, and supervises the performance of maintenance.
- (c) *Platoon sergeant.* The platoon sergeant assists the maintenance officer, supervises the enlisted personnel in maintenance platoon headquarters, and during unit movement, he supervises the loading of equipment and setting up of the new platoon area.
- (d) *Crew chiefs (2).* These crew chiefs maintain the two reconnaissance-type helicopters assigned the company.
- (e) *Crash-rescue (2).* The crash-rescue personnel maintain and operate the fire truck assigned to the company.
- (f) *Senior radio mechanic and radio mechanic.* These personnel maintain and service the radio sets installed in the aircraft and vehicles of the company. They also drive and maintain the $\frac{3}{4}$ -ton truck assigned to the maintenance platoon.

- (g) *Aircraft parts specialist*. The aircraft parts specialist requisitions aircraft components, maintains the unit technical order file, and drives and maintains the shop van assigned.
 - (h) *Clerk typist*. The clerk typist types requisitions and correspondence required by the maintenance platoon, and drives and maintains one of the 1/4-ton trucks assigned.
 - (i) *Helicopter mechanic (1), and aircraft maintenance crewman (1)*. These personnel assist the crew chiefs and other maintenance personnel as directed by the platoon sergeant.
 - (j) *Petroleum dispenser (2)*. The petroleum dispensers operate and maintain the two tank trucks assigned to the maintenance platoon.
 - (k) *Wheeled vehicle mechanic and wheeled vehicle mechanic's helper*. These personnel assist in the performance of vehicle maintenance. They may also be required as drivers or assistant drivers during unit displacement.
 - (l) *Light truck driver*. The light truck driver drives and maintains one of the 1/4-ton trucks assigned, and may be detailed by the platoon sergeant to assist in loading or unloading during unit displacement.
- (2) *Maintenance sections*.
- (a) *Flight line chief (3)*. Each section flight line chief supervises the maintenance of the seven helicopters of the helicopter section. He keeps the helicopter and maintenance platoon commanders aware of the aircraft status and personnel situation within the section. When the helicopter platoon is operating away from the base airfield, he acts as a platoon NCO.
 - (b) *Crew chiefs (21)*. Each section has seven crew chiefs, or one per helicopter. The crew chiefs perform or supervise maintenance on their assigned aircraft.
 - (c) *Helicopter mechanics (21) and aircraft maintenance crewmen (15)*. These personnel assist the crew chiefs and other maintenance personnel as directed by the section line chief.
 - (d) *Petroleum dispensers (6)*. The petroleum dispensers operate and maintain the tank truck assigned each section.

d. *Employment*.

- (1) *Principles of employment*. For maximum efficiency in the operation of the maintenance platoon, all personnel of the

three maintenance sections will be available at the unit base heliport and their efforts pooled to minimize duplication and conserve time. When a transport platoon is detached for a specific mission, the maintenance section supporting that platoon will accompany it.

- (2) *Factors affecting employment.* Greatest efficiency is achieved by centralized operation of all company maintenance. When maintenance is decentralized, the maintenance officer will maintain close contact with all sections in order to program periodic inspections and component changes. An important consideration in scheduling maintenance is that maintenance personnel must also perform other duties such as manning the perimeter of defense. Care must be exercised, however, to insure that the number of maintenance personnel utilized for extra duties does not preclude the fulfillment of the maintenance requirements.
- (3) *The cargo helicopter field maintenance detachment.* The Transportation company, rotary wing, light transport may be supported by the cargo helicopter field maintenance detachment. This unit, composed of 1 officer, 1 warrant officer, and 53 enlisted men, supports the helicopter company with third echelon maintenance. The detachment is established at the base heliport, or within the near vicinity, if more suitable areas for maintenance are available elsewhere. Hardstand areas are desirable for the repair and replacement activities of the detachment.

e. Security. The maintenance platoon will be included in the perimeter defense and will furnish personnel and equipment for this purpose.

f. Special Operations. See FM 1-100.

Section IV. MARCHES, BIVOUACS, AND ASSEMBLY AREAS* 6-12. Marches

a. The company is 100 percent mobile when utilizing all organic vehicles and aircraft.

b. A reconnaissance helicopter of the company will normally fly convoy control and provide flank security by air reconnaissance.

c. The supporting maintenance detachment will normally move with the company on all marches.

d. The company may move independently or as part of a larger unit. Battalion or higher headquarters will direct the movement. Independent moves will be coordinated with appropriate agencies.

* For general principles, see chapter 1.

6-13. Bivouacs and Assembly Areas

a. The helicopter capability for confined area operations makes it useful for occupation of relatively unprepared bivouac and assembly areas. Areas suitable for landing and parking helicopters, and the supporting vehicles of the company, must meet the requirements described in paragraphs 1-5 through 1-7 of chapter 1.

b. Battalion or higher headquarters will direct the company into bivouac. When the supported unit goes into bivouac, the company will normally return to battalion control.

Section V. ADMINISTRATION*

6-14. Personnel

The administrative officer is responsible to the company commander for personnel administration. He is assisted by the battalion S1.

6-15. Supply

Logistical support is provided by the supply section of the company and by support echelons. A detachment from the supporting TAAM unit will normally work close to the company. The supporting field maintenance unit will supply aircraft items. The company will maintain an appropriate stock level of supplies.

6-16. Maintenance

a. The company has three maintenance sections, one for each transport platoon, and a service platoon headquarters. When the transport platoon is operating independently, the maintenance sections will move with the supported platoon.

b. Field maintenance is provided by the supporting TAAM unit. A detachment from the transportation transport helicopter maintenance company supporting the battalion habitually supports one company.

Section VI. TRAINING*

6-17. Individual Training

a. The complexity of helicopter maintenance generates a need for specialist training, preferably by a service school. Commanders will take steps to have as many personnel school-trained as possible.

b. Advanced individual training will begin when personnel are assigned to the company. As new equipment becomes available, the personnel must be instructed in its use.

* For general principles, see chapter 1.

c. Aviators must achieve proficiency in night and reduced-visibility flight operations, formation flying, navigational proficiency in contour formation flying, and confined area operations under maximum load conditions.

6-18. Section Training

The sections of the helicopter company will often work independently of the company. Section training must be continuous. Field training exercises should be conducted with sections and platoons as the basic operating unit. One maintenance section will habitually train with one helicopter platoon.

6-19. Training With Supported Units

a. The company operations officer will coordinate with the G3(S3) of the supported unit for familiarization in all aspects of helicopter operations. Combat personnel should be oriented on methods of loading, hand signals, external loads, and dismounting the aircraft. One or more rehearsals are desirable prior to an actual operation.

b. The helicopter company will play a major role in aerial resupply of technical service items. Personnel of the technical service depots must be trained in loading, unloading, preparation, and packaging for external loads, hand signals, and the capabilities and limitations of helicopters. Practice and close liaison will facilitate resupply operations.

CHAPTER 7

TRANSPORTATION COMPANY, ROTARY WING, MEDIUM TRANSPORT

Section I. GENERAL

7-1. Purpose

This chapter provides guidance for commanders, staff officers, and other personnel on the organization and employment of a Transportation company, rotary wing, medium transport.

7-2. Scope

This chapter provides basic information concerning the administration, tactical planning, and the conduct of Army aviation operations by the Transportation company, rotary wing, medium transport. The stated principles and techniques are equally applicable to the single aircraft, the flights, or to the entire company.

7-3. Mission

The mission of the company is to provide air transport to expedite tactical operations and logistical support in the combat zone.

Section II. ORGANIZATION

7-4. Composition

The composition of the Transportation company, rotary wing, medium transport, is shown in figure 7-1.

7-5. Aircraft

a. Two reconnaissance helicopters provide the helicopter platoon commanders with aerial transportation.

b. Sixteen medium transport helicopters are used by the helicopter platoons to accomplish their assigned missions.

7-6. Assignment

This company is assigned to a field army and is normally attached to a headquarters and headquarters detachment, transport aircraft battalion.

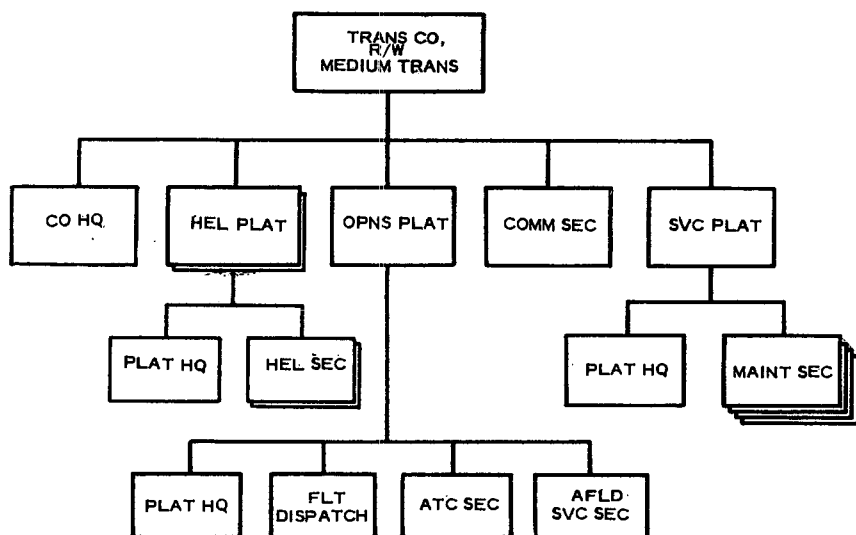


Figure 7-1. Transportation company, rotary wing, medium transport (TOE 55-58T).

7-7. Capabilities and Limitations

This unit—

a. Provides the necessary communications and terminal facilities for the operation of the unit heliport.

b. Is capable of transporting the following load (within a 100-mile radius from sea level to 1,000 feet elevation) :

Type Helicopter	Troops (240 lbs.)		Cargo (tons)		Litter
H-37	320	or	40	or	320

Note. For sustained effort, the above capabilities are reduced or adjusted by an aircraft availability factor which is dependent on the duration of the operation, the weather, and the flying skill of the aviators.

7-8. Planning and Coordination

a. The company commander must anticipate plans for the employment of his company. For this purpose, he will assign a liaison officer to the S3 section of the battalion to establish proper liaison and coordination.

b. Steps for planning are discussed in chapter 4. For details of employment of transport aviation units, see FM 57-35.

Section III. SECTION EMPLOYMENT AND OPERATIONS

7-9. General

The medium helicopter company contains the personnel and equipment to control and supervise company operations, and to

provide its own administration and mess support. The company will normally operate under the control of a battalion commander, but may be attached for operational control to a corps and be employed as corps troops. When employed as corps troops, the company may be further attached for operational control or placed in direct support of subordinate corps units.

7-10. Company Headquarters

a. Mission. The company headquarters provides command and control of the company by issuance of orders, and by supervision of operations, maintenance, supply, administration, and training.

b. Organization. The company headquarters contains the company commander, executive officer, first sergeant, supply sergeant, mess steward, and sufficient personnel to perform administration, vehicular maintenance, and mess functions.

c. Equipment. See current TOE 55-58.

d. Personnel. Key personnel of the company are the company commander, executive officer, first sergeant, mess steward, supply sergeant, and motor sergeant. They perform normal company duties.

e. Employment.

(1) *Principles of employment.* The company commander is responsible for establishing and organizing the company base airfield. The operations platoon, communications section, and service platoon and, when feasible, the flight elements, will operate with the company headquarters at the base airfield. The flight elements can, however, operate from nearby satellite landing areas.

(2) *Factors affecting employment.* Dispersion of the company is the primary factor affecting the employment of the company headquarters. The company commander must be able to control all elements of the company at all times. He must insure that adequate communications are established to effect the control required.

f. Security. The company commander is responsible for collective security. The executive officer is charged with establishing the internal security of the company area. Since a large area is required for parking helicopters, additional troops may be required to man defensive positions. Passive defense is the primary security means employed by the company. Particular attention is given to camouflage, camouflage discipline, concealment, and dispersion.

g. Special Operations. See FM 1-100.

7-11. Operations Platoon

a. Mission. The operations platoon establishes and operates the base airfield, and provides terminal air traffic and approach control. It coordinates and assigns flight missions, and performs airfield services.

b. Organization. The operations platoon consists of a platoon headquarters, a flight dispatch section, an air traffic control section, and an airfield service section.

c. Equipment. See current TOE 55-58.

d. Duties of Personnel.

- (1) *Operations officer.* The operations officer is responsible to the company commander for the overall operation of the platoon. This includes command and control of the platoon, coordination and assignment of flight missions, air traffic control, and airfield services. He is also responsible for the proper training of the platoon.
- (2) *Flight operations sergeant.* The flight operations sergeant acts as platoon sergeant and supervises the work of the enlisted men of the platoon. He supervises installation, operation, and maintenance of the airfield operations center; assists aviation personnel in the preparation of flight plans; and posts operations maps, charts, and files with the latest flight, airfield, and weather information.
- (3) *Other personnel.* The remaining personnel of the operations platoon perform duties commensurate with assigned MOS.

e. Employment.

- (1) *Principles of employment.* The operations platoon is the focal point of flight operations for the company and operates at the base airfield near the company headquarters. The status of aircraft within the company is made continuously available to the flight dispatch section to permit coordination with various mission requirements. This section operates a teletypewriter to FOC to facilitate flight planning and to obtain weather and other flight information. The air traffic control section contains tower operators and equipment to provide terminal traffic control at the base airfield. The airfield service section of the operations platoon provides the company with crash and rescue service, refueling service, parking and mooring service, airfield lighting, and general assistance to aircraft utilizing the base airfield.

- (2) *Factors affecting employment.* Since the operations platoon contains a minimum number of personnel, various sections of the platoon may be augmented with personnel from other elements of the company to maintain 24-hour operations, and to facilitate operations from satellite airfields.

f. Security. The operations platoon is included in the airfield security plan. Platoon personnel will perform security duties as required.

g. Special Operations. See FM 1-100.

7-12. Communications Section

a. Mission. The communications section has the mission of installing, maintaining, and assisting in the operation of the communication and navigation equipment utilized at the base airfield.

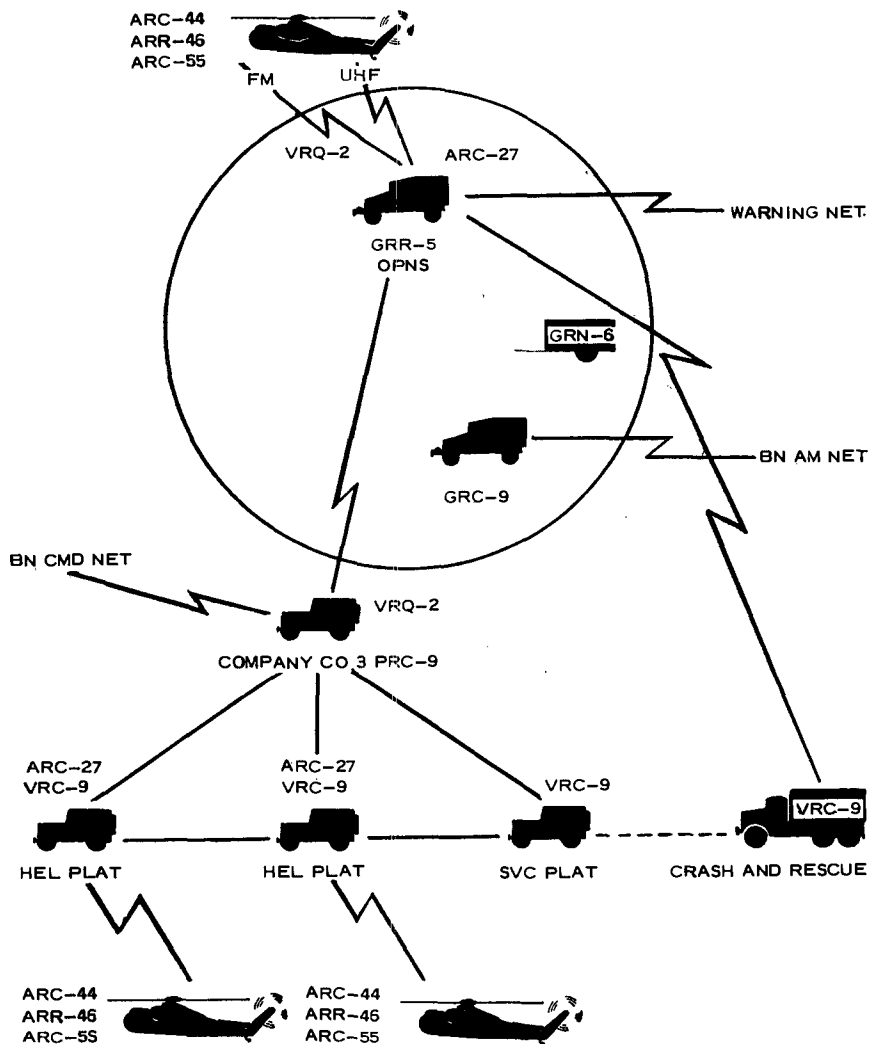
b. Organization. The communications section consists of a communications chief, a senior radio mechanic, 2 intermediate-speed radio operators, a radio mechanic, a senior switchboard operator, 2 field wiremen, and a switchboard operator.

c. Duties of Personnel.

- (1) The communications chief is responsible for training of personnel in his section and for supervising section operations. He is responsible for establishing and maintaining wire and radio nets in the company, for advising and assisting the company commander in all communication planning for preparation of authorized codes; and for procurement and distribution of appropriate SOI and SSI.
- (2) The two radio mechanics perform second echelon maintenance and repairs on the company FM, AM, and UHF radio equipment.
- (3) The two intermediate-speed radio operators install and operate the radios, perform cryptographic functions, and assist in operation of the company message center.
- (4) The two switchboard operators install and operate the company switchboard, assist in the installation of the company wire system, and perform message center functions as directed.
- (5) The two wiremen install and maintain the local wire system.

d. Employment.

- (1) *Principles of employment.* The communications section operates at the company base airfield immediately adjacent



REMARKS:

1. 3 PRC-9 RADIO SETS IN HEADQUARTERS PLATOON OPERATE IN COMPANY NET AS REQUIRED.

EXAMPLES:

- A. SERVICE PLATOON (GROUND PARTY)
 - B. CRASH AND RESCUE (GROUND PARTY)
 - C. SPECIAL ASSIGNMENT (SATELLITE FIELD)
2. CRASH AND RESCUE SET WILL NORMALLY OPERATE IN TOWER NET. MAY BE PLACED IN COMPANY NET IF REQUIRED.
 3. AIRCRAFT CAN OPERATE IN ANY ONE OF THE FOLLOWING NETS AS DIRECTED:

FM - TOWER UHF - TOWER
FM - NET OR SUPPORTED UNIT

Figure 7-2. Radio net, Transportation company, rotary wing, medium transport.

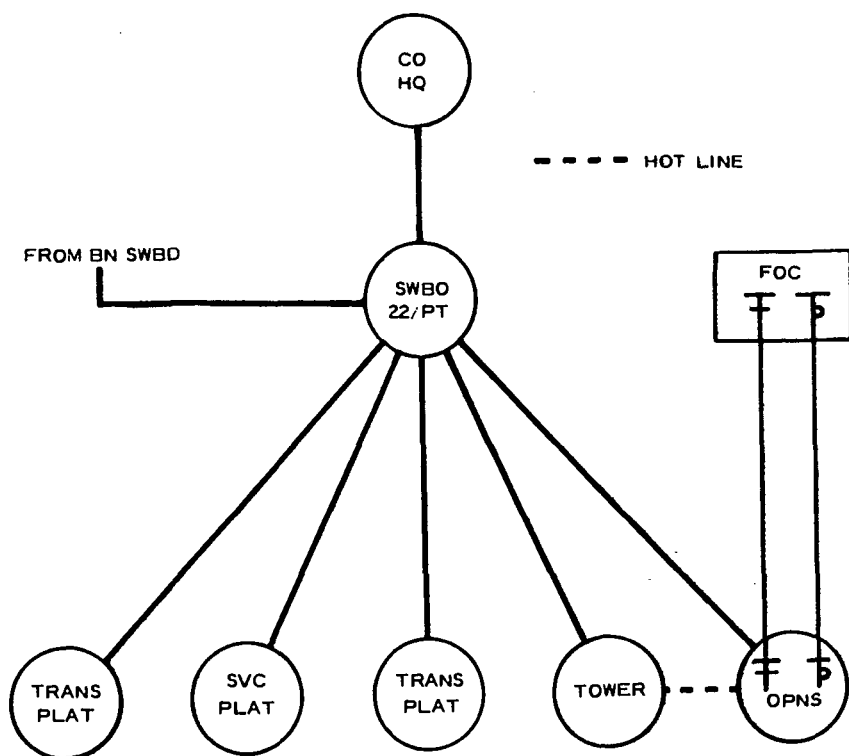


Figure 7-3. Wire net, Transportation company, rotary wing, medium transport.

to the company headquarters and the operations platoon. The section installs and maintains the wire system on the base airfield and to flight elements retained under company control but located at nearby satellite airfields. It also establishes and operates a company communications center which serves as a message center and as a focal point for all company command radio and wire communications nets (figs. 7-2 and 7-3).

- (2) *Factors affecting employment.* The communications section is not designed to install extensive wire communications. To perform this duty, this section must be augmented by additional personnel.

e. Security. The communications section will be included in the base airfield security plan and will provide personnel as required. The communications section must not only recognize but must also practice communications security.

f. Special Operations. See FM 1-100.

7-13. Helicopter Platoons (2)

a. Mission. The two helicopter platoons provide the tactical and logistical air transport capability of the company.

b. Organization. Each helicopter platoon consists of a platoon headquarters and two helicopter sections. The platoon headquarters contains the platoon commander, the platoon sergeant, a helicopter crew chief, and a light truck driver. Each helicopter section contains a section commander, an assistant section commander, 6 rotary wing aviators, and 4 flight engineers.

c. Duties of Personnel.

- (1) The platoon commander is responsible for the efficient operation of his platoon. He reports to the operations officer on the state of proficiency and training of the aviators. He assists the company commander and the operations officer in formulating plans for both routine and special missions involving his platoon.
- (2) The section commanders are responsible to the platoon commander for the successful operation of the helicopter sections. Section commanders insure that aviators performing missions are properly briefed on such aspects of operations as flight formations to be used, alternate routes, weather, and communications frequencies. See FM 57-35.
- (3) Flight missions are assigned rotary wing aviators by the platoon or flight commander. The aviators are also assigned additional duties within the company when not flying. These duties may include assistant operations officer, supply officer, mess officer, etc.
- (4) The platoon sergeant supervises the work of enlisted personnel of the platoon. These enlisted personnel perform duties commensurate with assigned MOS.

d. Employment.

- (1) *Principles of employment.* The helicopter platoons are employed to transport personnel and cargo in tactical or service support roles to give the ground commander the required support to accomplish his mission. Normal employment is in mass; however, a platoon may be detached to support a small operation for a short period of time.
- (2) *Factors affecting employment.* Because of maintenance requirements, the helicopter platoons are not capable of operating in a detached status for extended periods.

e. Security. Local security for the helicopter platoons is provided by platoon personnel. The platoon is included in the base airfield security plan and must furnish personnel as required.

f. Special Operations. See FM 1-100.

7-14. Service Platoon

a. Mission. The service platoon provides organizational aircraft maintenance for the company.

b. Organization. The service platoon contains a platoon headquarters section and four maintenance sections.

c. Duties of Personnel.

- (1) The platoon commander is the maintenance officer for the company. He is responsible for the proper maintenance of transport and reconnaissance helicopters, and for the training of maintenance and aircraft supply personnel. He advises the operations officer of aircraft availability, and plans estimates of future availability.
- (2) The platoon sergeant assists the platoon commander as directed. He directly supervises the work of the enlisted men of the platoon. During movement, he supervises the loading, unloading, and setting up of equipment. His duties include the preparation of maintenance forms, records and reports, training and placement of personnel, scheduling of maintenance, and technical supply requisitioning of aircraft parts.
- (3) In addition to the platoon commander and the platoon sergeant, the platoon headquarters contains four technical inspectors, a senior electrical system repairman, a senior hydraulic system repairman, an aircraft parts specialist, a clerk typist, an electrical system repairman, a hydraulic system repairman, a records clerk, a supply specialist, and a light truck driver. These personnel perform duties commensurate with assigned MOS.
- (4) Each of the 4 maintenance sections contains a maintenance supervisor, 5 senior helicopter mechanics, an airframe repairman, 5 helicopter mechanics, and 4 helicopter mechanic's helpers. These personnel perform duties commensurate with assigned MOS.

d. Employment.

- (1) *Principles of employment.* The service platoon is normally employed under centralized control of the maintenance officer. When a helicopter platoon is detached for a specific mission, the supporting maintenance sections will accom-

pany the platoon and operate under the control of the helicopter platoon commander.

- (2) *Factors affecting employment.* Centralized operation of the service platoon provides the maintenance effort with maximum efficiency. When decentralized operation becomes necessary, the maintenance officer must maintain close contact with the various sections to properly program maintenance requirements. Compared with centralized operations where tools, personnel, and spare parts are pooled, decentralized operation will decrease the capabilities of the sections.

e. Security. The service platoon is included in the security plan for the base airfield and must furnish personnel as required. Care must be taken, however, to insure that maintenance requirements of the platoon are not jeopardized by the absence of personnel.

f. Special Operations. See FM 1-100.

Section IV. MARCHES, BIVOUACS, AND ASSEMBLY AREAS*

7-15. Marches

The medium transport helicopter company is 100 percent mobile when utilizing all organic aircraft and vehicles. Marches are made as directed by battalion or higher headquarters. The unit will move as a whole whenever possible. Aircraft will normally move by platoon with a flight interval between flights to facilitate refueling and placement at the bivouac or assembly area. A reconnaissance helicopter can be used to accomplish column control and security of flanks.

7-16. Bivouacs and Assembly Areas

An advance party is normally dispatched to prepare and arrange the bivouac or assembly area prior to the arrival of the company. The advance party will consist of personnel from the company headquarters, operations platoon, and the service platoon.

Section V. ADMINISTRATION*

7-17. Personnel

A high degree of specialization is necessary to efficiently operate a medium helicopter company. Commanders must insure that personnel are carefully screened and effectively led. The executive officer obtains guidance and assistance from the transport battalion S1.

* For general principles, see chapter 1.

7-18. Supply

Aircraft supply is centered in the service platoon headquarters. The company headquarters is responsible for normal unit supply. Resupply of aircraft parts, spare parts, etc., is the responsibility of the supporting transport helicopter maintenance company.

7-19. Maintenance

The company is responsible for all organizational maintenance, limited only by tools, skill of personnel, and equipment. The supporting TAAM unit will normally assign one detachment to support the helicopter company, and this detachment is responsible for field maintenance.

Section VI. TRAINING*

7-20. Individual and Section Training

a. Personnel must be given as much service school training as possible. Advanced individual training will start immediately on assignment to the company. Appropriate ATP's will be followed during all phases of individual training.

b. Sections will often operate independently of the company. Ample opportunity must be provided sections and platoons to train as an integral unit. Corresponding maintenance sections of the service platoon should operate with the helicopter sections.

7-21. Training With Supported Units

Other arms and services operating with helicopter company support should be given ample training and familiarization in helicopter operations to include loading, unloading, crash procedures, and capabilities and limitations of aircraft.

* For general principles, see chapter 1.
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CHAPTER 8

CORPS AVIATION COMPANY

To be published.

CHAPTER 9
CORPS ARTILLERY AVIATION COMPANY

To be published.

CHAPTER 10

INFANTRY DIVISION AVIATION COMPANY

Section I. GENERAL

10-1. Purpose

This chapter will provide a guide for commanders and personnel of the infantry division aviation company in performance of their duties and accomplishment of the company mission.

10-2. Scope

It covers mission, organization, employment, capabilities and limitations, administration, and training in sufficient detail to provide company and element commanders with necessary guidelines for day-to-day operation. See FM 1-100 for aviation annex to division SOP.

10-3. Mission

The mission of the company is to provide the division and its elements with aerial observation, reconnaissance, transportation, and limited resupply.

Section II. ORGANIZATION

10-4. Composition

The composition of the infantry division aviation company is shown in figure 10-1. Equipment is as listed in current TOE 1-7.

10-5. Assignment

The aviation company is organic to the infantry division.

10-6. Capabilities

The aviation company provides—

a. Day and night aerial observation, reconnaissance, and surveillance.

b. Rapid spot aerial photography consisting of daylight oblique and vertical, and night vertical photography.

c. Limited transportation of troops, supplies, and equipment.

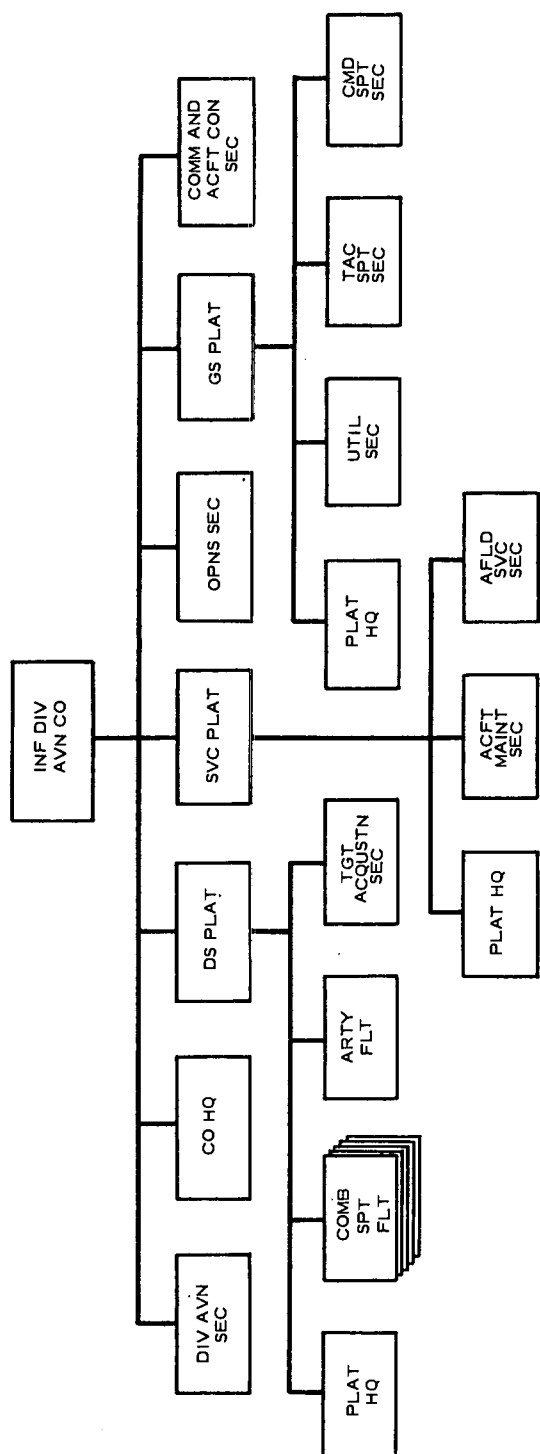


Figure 10-1. Infantry division aviation company, (TOE 1-7T).

- d.* Supplemental aeromedical evacuation.
- e.* Limited battle area illumination.
- f.* Transportation of commanders and staffs by air.
- g.* Aerial radiological surveys.
- h.* Aerial communications assistance to include radio relay, wire laying, message drop and pickup, and propaganda leaflet distribution.

10-7. Planning and Coordination

a. The amount and type of company planning and coordination will vary with division missions. To maximize the effect of the available aviation support, the division aviation officer is required to exercise close and continuous coordination with the aviation company commander as well as at division staff level. He prepares the aviation support plan and the aviation annex to the operations order.

b. Based on pertinent annexes to division operations orders, administrative orders and supplementary instructions, the aviation company and element commanders assign specific tasks to the elements and sections under their control.

c. Planning and coordination with combat commanders of the division is carried out by the combat support flight commanders, the artillery flight commander, and liaison officers.

Section III. SECTION EMPLOYMENT AND OPERATIONS

10-8. General

The organization of the sections within the company provides a flexible basis for employment. Flexibility in organization is constantly used to meet operational requirements. The division aviation company contains the personnel and equipment necessary to provide continuing and responsive aviation support to the division and its elements, and to conduct internal administration, maintenance, supply, and communications. The aviation company is employed as directed by the division commander. The division aviation officer exercises operational control and special staff supervision of the aviation company.

10-9. Division Aviation Section

a. Mission. The division aviation section provides the division commander with timely and accurate information on all aviation

operations matters. This section plans the aviation support required by the division mission and prepares the aviation annex to the operations order.

b. *Organization.* This section consists of a division aviation officer, an assistant division aviation officer, an operations officer, a plans and operations sergeant, and operations specialist, a clerk typist, an intermediate-speed radio operator, and two light truck drivers.

c. *Duties of Personnel.*

- (1) *Division aviation officer.* The division aviation officer is a member of the division special staff and is responsible for the staff functions of the section. He serves as an advisor to the division commander on all aviation operational matters. He supervises and trains his section personnel. In addition, he exercises staff supervision of the aviation company, and any attached aircraft units as directed by the division commander.
- (2) *Assistant division aviation officer.* The assistant division aviation officer assists the division aviation officer and provides staff depth in the section for more flexible operation.
- (3) *Operations officer.* The operations officer coordinates all requests for aviation support. He maintains necessary records, renders reports to the aviation officer on aircraft availability within the aviation company and any attached units, advises requesting units on aircraft suitability for particular type missions, and maintains the command's priority for supporting divisional units.
- (4) *Plans and operations sergeant.* The plans and operations sergeant maintains the necessary charts, maps, and records to keep the aviation section informed on all aviation activities. He assigns individual duties to all enlisted members of the section and coordinates their work.
- (5) *Operations specialist.* The operations specialist assists the plans and operations sergeant. He maintains the situation map under the supervision of the operations officer.
- (6) *Other personnel.* Other personnel in the division aviation section are two light truck drivers, a clerk typist, and one intermediate-speed radio operator.

d. *Employment.* This section is normally employed as a single unit; however, its organization is flexible enough to allow operation at more than one site.

(1) *Principles of employment.* As a special staff section, the division aviation section is normally located at division headquarters.

(2) *Factors affecting employment.* During special operations, which require the dispersion of the division over a broad area, the section will split into a maximum of two sections to be employed at the division headquarters and at the brigade or alternate command post.

e. *Security.* The security of the section is provided by the security element of the command post.

f. *Special Operations.* See FM 1-100.

10-10. Company Headquarters

a. *Mission.* The company headquarters provides command and administrative control and support for the organic elements of the company. It contains personnel who assist the commander in supervision of operations, maintenance, supply, and training.

b. *Organization.* The company headquarters consists of a company commander, an executive officer, a first sergeant, mess personnel, a supply sergeant, an armorer, a company clerk, an intermediate-speed radio operator, and two light truck drivers.

c. *Personnel.* Key personnel of the company headquarters are the company commander, executive officer, first sergeant, mess steward, motor sergeant, and supply sergeant. In addition to the normal administrative personnel, the headquarters has an intermediate-speed radio operator.

d. *Employment.*

(1) *Principles of employment.* The company commander is responsible for selection and organization of the base airfield. The company headquarters is established at, and will habitually operate from, the base airfield.

(2) *Factors affecting employment.* Terrain, enemy situation, or the division mission may require employment of company headquarters elements on one or more satellite airstrips necessitating attachment of additional communications equipment and personnel for proper exercise of command and control.

e. Security. The company commander is responsible for security of the base airfield and all elements retained under his control. He must give constant consideration to such variable factors as enemy ground and air capabilities, location of the airfield in relation to friendly units, vulnerability of the airfield to the effects of nuclear attacks, and company defensive capabilities based on available personnel and weapons. The company security officer (company executive officer) will coordinate security measures with adjacent units and higher headquarters and formulate and supervise execution of the base airfield security plan.

f. Special Operations. See FM 1-100.

10-11. Operations Section

a. Mission. The operations section accepts and processes mission requests, and coordinates and assigns these missions to elements of the company. This section maintains flight records on all aviators assigned or attached to the company; monitors flight requirements and aviation combat readiness; coordinates all training; and controls the effective use of pilots and aircraft within the platoons.

b. Organization. The operations section consists of the assistant operations officer, 1 operations sergeant, 2 operations specialists, 2 clerk typists, and 2 intermediate-speed radio operators.

c. Duties of Personnel.

- (1) *Assistant operations officer.* The assistant operations officer is in charge of the company operations section. He accepts and processes all mission requests. He coordinates and assigns all flight missions. He supervises the maintenance of the aviators flight records, and the operation of the control tower at the base airfield.
- (2) *Operations sergeant.* The operations sergeant assists the operations officer in performing his duties. He supervises enlisted members of the section, and the posting of inbound and outbound aircraft flights. He records information on the situation map and assists in the preparation, reproduction, and distribution of orders, sketches, overlays, schedules, and reports.
- (3) *Operations specialists (2).* Under the supervision of the operations sergeant, the operations specialists post and maintain the individual flight records of the company, and assist the operations sergeant as directed. One op-

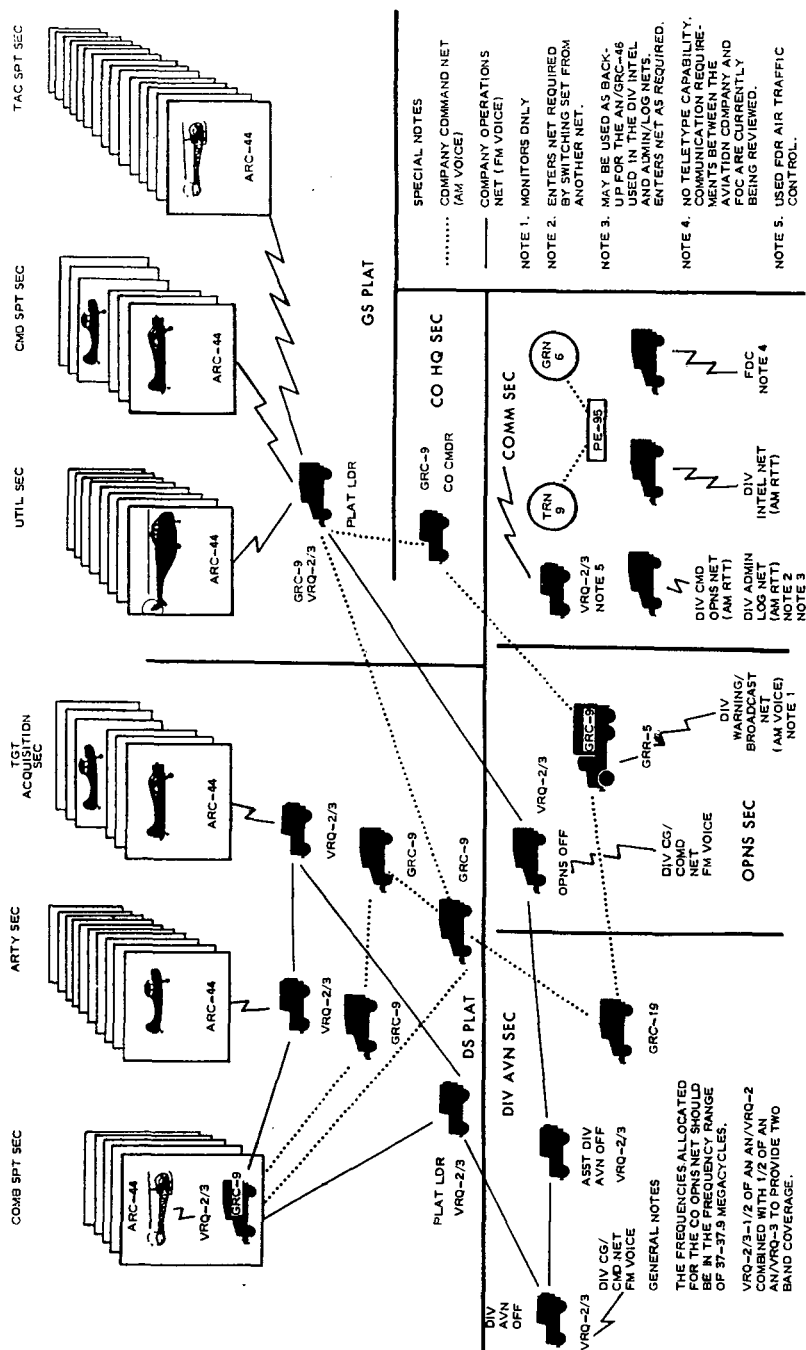


Figure 10-2. Radio net, infantry division aviation company.

erations specialist drives and maintains the $\frac{3}{4}$ -ton truck assigned to the section and operates the AN/VRQ-2/3 radio set.

- (4) *Clerk typists (2)*. The clerk typists, supervised by the operations sergeant, perform necessary administrative actions required within the section.
- (5) *Intermediate-speed radio operators (2)*. The intermediate-speed radio operators operate the AN/GRC-9 radio set. One drives and maintains the $2\frac{1}{2}$ -ton shop van truck assigned to the section.

d. Employment.

- (1) *Principles of employment.* The operations section normally operates in the vicinity of the company headquar-

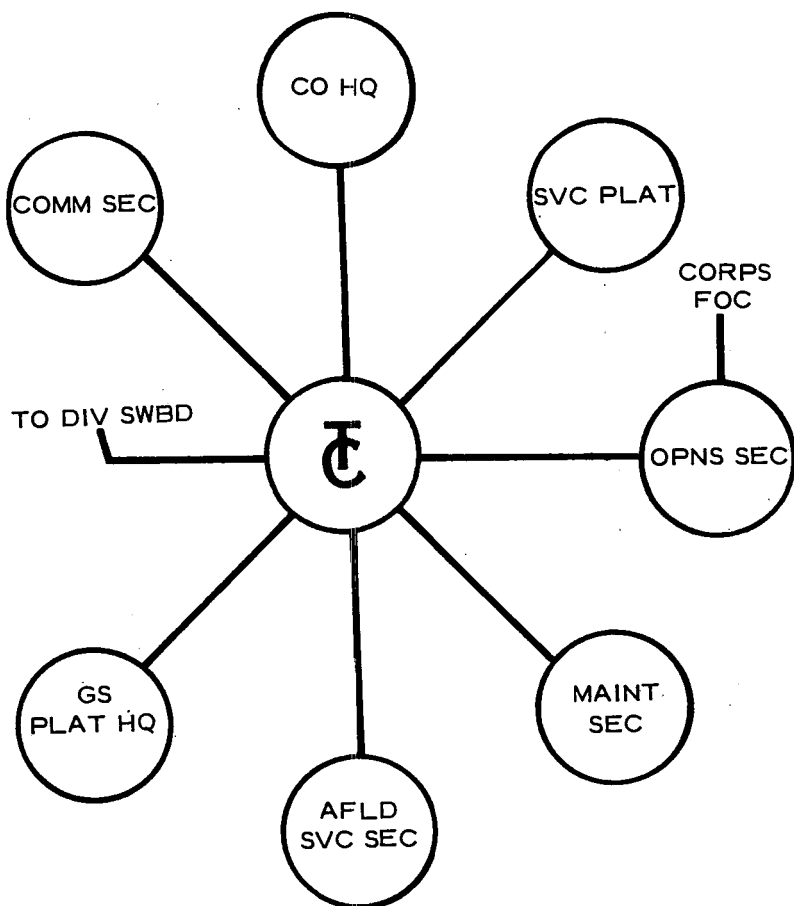


Figure 10-3. Wire net, infantry division aviation company.

ters and is the focal point for flight operations of the company. The section accepts and processes mission requests from the division aviation section and subordinate units which require aviation support. The status of aircraft within the various elements of the company must be made continuously available to the section to permit coordination with mission requirements. The section operates a teletypewriter to the corps FOC to facilitate flight planning and to obtain weather and other flight information.

- (2) *Factors affecting employment.* Since the operations section is comprised of a minimum number of personnel, the section, when necessary, will be augmented with personnel from other company elements to maintain 24-hour operations. Augmentation may also be necessary to facilitate operations from satellite airstrips.

e. Security. The operations section is secured within the base airfield perimeter.

f. Special Operations. See FM 1-100.

10-12. Communications and Aircraft Control Section

a. Mission. The communications and aircraft control section establishes, operates, and maintains the communications nets of the aviation company, including wire, radio, and teletype (figs. 10-2 and 10-3). Personnel and equipment for the operation of the control tower at the base airfield are located within this section.

b. Organization. The communications and aircraft control section consists of 1 airfield control officer, 1 communications chief, 2 radio telephone/teletype team chiefs, 4 radio telephone/teletype operators, 1 senior air controller, 1 air controller, 2 senior radio mechanics, 2 radio mechanics, 2 intermediate-speed radio operators, 1 switchboard operator, and 1 light truck driver.

c. Duties of Personnel.

- (1) *Airfield control officer.* The airfield control officer is the communications officer of the company. He supervises the establishment and operation of the company communications system and coordinates with the assistant operations officer in the establishment of the control tower. He is responsible for the proper training of the individuals within his section.

- (2) *Communications chief.* The communications chief assists the airfield control officer in the performance of his duties and supervises the enlisted men of the section.
- (3) *Radio telephone/teletype team (2).* There are two radio telephone/teletype teams in the section. Each consists of a team chief and two radio telephone/teletype operators. These teams operate the two AN/GRC-46 radio-teletypewriter sets in the company. Each team has a $\frac{3}{4}$ -ton truck, driven and maintained by one operator from each team.
- (4) *Radio mechanics (4).* Radio mechanics' duties include—
 - (a) Inspecting, testing, and repairing radio sets and other signal equipment assigned to the company, including aircraft radios.
 - (b) Maintaining the authorized level of repair parts for signal maintenance and informing the communications chief of the status of signal maintenance and the supply of authorized spare parts.
 - (c) Maintaining records of maintenance and modifications performed on each item of signal equipment in the company.
- (5) *Senior air controller.* The senior air controller, assisted by the air controller, operates the base airfield control tower under the supervision of the assistant operations officer.
- (6) *Intermediate-speed radio operators (2).* The intermediate-speed radio operators, under the supervision of the communications chief, operate the AN/GRC-19 radio set assigned to the section. One is also a light truck driver.
- (7) *Light truck driver.* The light truck driver drives and maintains the $\frac{1}{4}$ -ton truck assigned to the section and operates the AN/VRQ-2/3 radio set.

d. *Employment.*

- (1) *Principles of employment.* The communications and aircraft control section will operate adjacent to the company headquarters and the operations section at the division base airfield. The section will install and operate the control tower for the base airfield. Also, it will install and maintain wire on the base airfield and to flight elements which are retained under company control but operate from satellite airstrips located in close proximity to the base airfield.

- (2) *Factors affecting employment.* The section is not designed to install wire or wire substitute communications to flight elements of the company, particularly the direct support platoon, attached or in direct support of various elements of the division. Maximum use must be made of existing communications facilities to establish communication with these elements.

e. Security. The section is included in the perimeter defense of the base airfield.

f. Special Operations. See FM 1-100.

10-13. Direct Support Platoon

a. Mission. The direct support platoon furnishes close, continuous aviation support to the combat elements of the division.

b. Organization. The direct support platoon consists of a platoon headquarters, five combat support flights, an artillery flight, and a target acquisition section.

c. Duties of Personnel.

- (1) *Direct support platoon commander.* The platoon commander supervises the flights within the platoon. He informs and/or coordinates with the assistant operations officer all missions assigned to the platoon. In addition, he coordinates assignment of additional aircraft and pilots to the flights within the platoon and supervises maintenance of the platoon aircraft.
- (2) *Combat support flight commander (5).* The combat support flight commander acts as the aviation advisor for the battle group commander. All aviation support assigned to the flight for a particular mission is commanded by the combat support flight commander. He plans the use of all aviation elements with the battle group commander, and utilizes the aviators assigned to the flight as required.
- (3) *Artillery flight commander.* The artillery flight commander commands the artillery flight. He assigns missions and pilots on a priority basis commensurate with the mission of division artillery. He acts as the aviation advisor to the division artillery commander. He coordinates and supervises the maintenance of equipment assigned to his section.
- (4) *Artillery flight liaison officer.* The liaison officer of the artillery flight is the aviation representative to the division artillery S3. He advises the S3 on all aviation

matters, coordinates missions with, and works under the supervision of, the artillery flight commander.

- (5) *Target acquisition section commander.* The section commander controls the target acquisition section which is normally employed to provide aviation support to the R and S (reconnaissance and surveillance) platoon of the division cavalry squadron. He advises the squadron commander on the best employment of assigned equipment to achieve maximum efficient operation of the special equipment carried in the aircraft, and supervises the maintenance of the equipment assigned to his section.
- (6) *Target acquisition liaison officer.* The liaison officer supervised by the section commander, establishes and maintains close liaison with the supported unit.
- (7) *Other personnel.* The platoon is assigned sufficient operations personnel, maintenance supervisors, aviators, crew chiefs, radio operators, and drivers for the performance of the platoon mission.

d. Employment.

- (1) *Principles of employment.* The direct support platoon, with necessary augmentation, provides ground commanders in forward positions with the aviation support necessary to accomplish their mission. To provide maximum aviation support, elements of this platoon, with necessary augmentation, must operate from airstrips and landing sites in the forward area. The combat support flights are habitually attached or placed in direct support of the same battle groups and are located with those elements. The artillery flight, or elements thereof, is normally attached to or placed in direct support of division artillery or the artillery battalions. Elements of the flight may be attached to one or more of the combat support flights when required. In addition, the artillery flight may require augmentation of helicopters from the general support platoon. The target acquisition section is normally attached to or placed in direct support of the cavalry squadron. It may, however, be employed in general support of the division. It is advantageous for the aviators from the various sections of the platoon to habitually support the same unit; however, aircraft and crews may be attached to other sections within the platoon, either singularly or as a complete section.

- (2) *Factors affecting employment.* Adequate aviation support must be provided the ground commander to assist in accomplishment of his mission. The mission of the supported unit must be considered when determining the organization for combat of the flights of the direct support platoon. In those cases where the direct support platoon alone cannot provide the required aviation support, the aircraft must be made available from the general support platoon. During combat operations the direct support platoon must be maintained at full strength in personnel, aircraft, and other equipment. An effective replacement system must be considered by the aviation officer and the company commander. Immediate replacement of combat losses will normally be furnished from the general support platoon.

e. Security. When feasible, all elements of the direct support platoon will be included within the defense perimeter of the supported unit. When terrain or other obstacles make this impossible, the supported unit must supply additional personnel for the defense of the sections. The platoon headquarters will operate from a forward strip of one of the flights or from the base strip, and be included in its defense area.

f. Special Operations. See FM 1-100.

10-14. General Support Platoon

a. Mission. The general support platoon supports and augments all sections of the direct support platoon and furnishes support to the division headquarters and other units in the rear area.

b. Organization. The general support platoon includes a platoon headquarters, command support section, tactical support section, and a utility section.

c. Duties of Personnel.

- (1) *Platoon commander.* The general support platoon commander supervises all elements of his platoon, including maintenance of assigned equipment; assists in the organization, operation, and security of the base airfield; normally assists and provides depth to the operations section; and utilizes the three flight leaders to exercise control of the aviators and crew chiefs assigned to the platoon.

- (2) *Operations sergeant.* The operations sergeant, under the supervision of the flight commander, maintains a current

status of all platoon aircraft and missions. He acts as platoon sergeant for the enlisted members of the platoon.

d. Employment. The general support platoon provides aircraft as needed to support divisional elements not otherwise specifically supported. In addition, it provides an aircraft pool to augment the capabilities of the direct support platoon.

(1) *Principles of employment.* The aircraft of the general support platoon can be employed individually or by section. The aircraft requirements of the combat support flights and other divisional elements such as armor battalion, signal, and engineers, must be considered when allocating aircraft from this platoon. When aircraft from this platoon are assigned to support these units, they normally operate from the vicinity of the supported units' command posts.

(2) *Factors affecting employment.* The aviation support requirements of all committed elements of the division, including the command support and administrative requirements, will govern the employment of the general support platoon. The overall mission of division and the specific missions of the divisional elements must be considered when allocating aviation support from the general support platoon. Additionally, aircraft, if available from other units, may be utilized to augment the capabilities of the platoon.

e. Security. The general support platoon is established within the base airfield perimeter for security. Aircraft supporting divisional elements depend on the supported unit for security.

f. Special Operations. See FM 1-100.

10-15. Service Platoon

a. Mission. The service platoon performs aircraft maintenance and airfield services at the base airfield, operates the company motor pool, and performs the wheeled vehicle maintenance. All maintenance records, schedules, and reports are compiled by the platoon. The service platoon establishes and maintains a technical supply section for the receipt, issue, stockage, and turn-in of aircraft parts and equipment. This supply function is independent of the normal company supply.

b. Organization. The service platoon consists of a platoon headquarters, aircraft maintenance section, and airfield service section.

c. *Duties of Personnel.*

(1) *Platoon headquarters.*

- (a) *Aircraft maintenance officer.* The aircraft maintenance officer is the platoon commander of the service platoon. He is responsible for the supervision, inspection, and technical guidance of all aircraft maintenance. He plans, schedules, and coordinates with the assistant operations officer, to obtain a maximum number of operational aircraft consistent with the assigned mission and adequate maintenance. He advises the commander on all maintenance matters, and assists in the occupation and defense of the base airfield.
- (b) *Platoon sergeant.* The platoon sergeant assists the maintenance officer in all activities. He controls and supervises all enlisted men in the service platoon, and advises the maintenance officer of any unusual or frequently encountered maintenance problems. In addition, he assists in the preparation of the defense perimeter at the base airfield.
- (c) *Motor sergeant.* The motor sergeant supervises and directs the motor maintenance activity of the company. He assigns specific duties to the motor mechanics of the section, and supervises drivers' first echelon maintenance and vehicle dispatches.
- (d) *Technical inspector (1 fixed wing and 1 rotary wing).* The technical inspectors provide technical advice and assistance to aircraft maintenance personnel. They determine serviceability of aircraft assemblies and report maintenance deficiencies or malpractices to the maintenance officer.
- (e) *Aircraft parts specialists.* The aircraft parts specialists, under the supervision of the maintenance officer, receive, issue, store, maintain, and turn in supplies and equipment for all assigned or attached air items. They compute and maintain a usage stock level of aircraft spare parts.

(2) *Aircraft maintenance section.*

- (a) *Aircraft maintenance supervisor.* The aircraft maintenance supervisor plans and assigns work, directs and instructs personnel in proper work techniques, assigns work priorities on the basis of tactical requirements and availability of personnel and material, spot checks maintenance activities, acts as aircraft maintenance technical supply officer, and issues tools and equipment.

(b) *Repair supervisor.* The repair supervisor actively assists the aircraft maintenance supervisor and the maintenance officer. He provides technical guidance to all enlisted mechanics. He also spot checks maintenance inspection standards.

(3) *Airfield service section.*

(a) *Section chief.* The section chief supervises the operation of the airfield service section. Under the supervision of the maintenance officer, the section chief provides all necessary service at the base airfield and coordinates service activities for the satellite fields.

(b) *Crash-rescue specialist.* The crash-rescue specialist drives, maintains, and operates the crash-rescue equipment at the base airfield. He trains and supervises personnel working with the equipment. Personnel from other sections of the platoon are detailed to assist in the operation of the crash-rescue equipment.

(c) *Petroleum storage specialist.* The petroleum storage specialist, assisted by the airfield service specialist, receives, stores, and supervises the dispensing of all types of aircraft fuels and lubricants. He also coordinates the refueling of assigned and transient aircraft. The refueling trucks and operators are provided by the division quartermaster company.

(d) *Powerman.* The powerman installs, maintains, and operates the field strip lighting equipment for the base airfield.

d. *Employment.*

(1) *Principles of employment.* This platoon is normally employed as a single unit at the base airfield. However, the section can be divided for special operations.

(2) *Factors affecting employment.* In addition to routine maintenance and airfield service, the service platoon provides depth for the forward elements of the company. Over widely dispersed areas, it may be necessary and advisable to provide technical maintenance support to the satellite fields.

e. *Security.* The service platoon provides personnel for the base airfield defense. The defensive perimeter at the base airfield is manned on order. The platoon, and all other personnel at the base airfield, will be required to fight as infantry in defense of the airfield. Maximum utilization of adjacent units' defense location is desirable.

f. *Special Operations.* See FM 1-100.

Section IV. MARCHES, BIVOUACS, AND ASSEMBLY AREAS*

10-16. Marches

a. The aviation company will conduct marches with the division trains or as directed by the division commander. The aviation company will furnish necessary reconnaissance, column control, flank security by air reconnaissance, and other aviation support for the march. The company is 100 percent mobile.

b. Loading plans must be flexible to compensate for variation in the company organization at the time of the movement. Elements of the company, particularly the combat support flights, which are attached to or placed in direct support of combat elements of the division, will displace with the supported unit after effecting appropriate coordination with the aviation company and higher headquarters.

10-17. Bivouacs and Assembly Areas

When the division is ordered into bivouac, the aviation company will give continuous support to the division by establishing multiple airfields. The division base airfield will normally be located near the division command posts. An additional airfield will normally be located near division rear and will coordinate with division trains for security.

Section V. ADMINISTRATION*

10-18. Personnel

The company commander, assisted by the executive officer and first sergeant, is responsible for routine company administration. Higher headquarters is responsible for personnel administration. The administrative services company maintains all service records for the company. Personnel assignments are made through normal division personnel channels.

10-19. Supply

The company headquarters maintains normal unit supply and the supply personnel of the service platoon maintain technical supply for aircraft. The TAAM company supporting the division is responsible for supply of spare parts, components, and replacement aircraft.

10-20. Maintenance

Each aircraft is assigned a crew chief who supervises or performs organizational maintenance on that aircraft. Technical

* For general principles, see chapter 1.

inspectors from the aircraft maintenance section make periodic spot and technical inspections.

Section VI. TRAINING*

10-21. Individual Training

Most personnel assigned to the company are specialists and as such have received service school training. On-the-job training can be utilized to increase the efficiency of the individual training program.

10-22. Section Training

Section training follows closely the individual training pattern and is accomplished on the job. Sections will normally operate with the same combat unit at all times. When the combat element conducts training, the aviation section will operate with the unit. Liaison must be continuous to provide this joint training.

10-23. Training With Supported Units

The company will normally be responsible for the training of the tactical units' air observers. In addition, it will organize a continuing program of indoctrination and orientation on the utilization of Army aircraft and employment of the aviation company for all other units in the division. Elements of the direct general support platoon train with other divisional units and provide aircraft and crews to augment the capabilities of the direct support platoon when the training situation requires.

* For general principles, see chapter 1.

CHAPTER 11

ARMORED DIVISION AVIATION COMPANY

Section I. GENERAL

11-1. Purpose

This chapter guides commanders and personnel of the armored division aviation company in the performance of their duties and accomplishment of the company mission.

11-2. Scope

It provides basic information concerning mission, organization, employment, administration, and training in sufficient detail to provide the company and element commanders the necessary guidelines for day-to-day operation. See FM 1-100 for aviation annex to division SOP.

11-3. Mission

The mission of the aviation company is to provide the division and its elements with aerial observation, reconnaissance, transportation, and limited resupply.

Section II. ORGANIZATION

11-4. Composition

The composition of the armored division aviation company is shown in figure 11-1. Equipment is as shown in current TOE 1-17.

11-5. Assignment

The aviation company is organic to an armored division.

11-6. Capabilities

The capabilities of the aviation company include the following:

- a. Providing the division with day and night aerial reconnaissance and surveillance.
- b. Supporting the airborne television, infrared, and radar capabilities of the armored cavalry squadron.
- c. Limited day or night aerial photographic capability, employing organic hand-held and aircraft-mounted cameras.

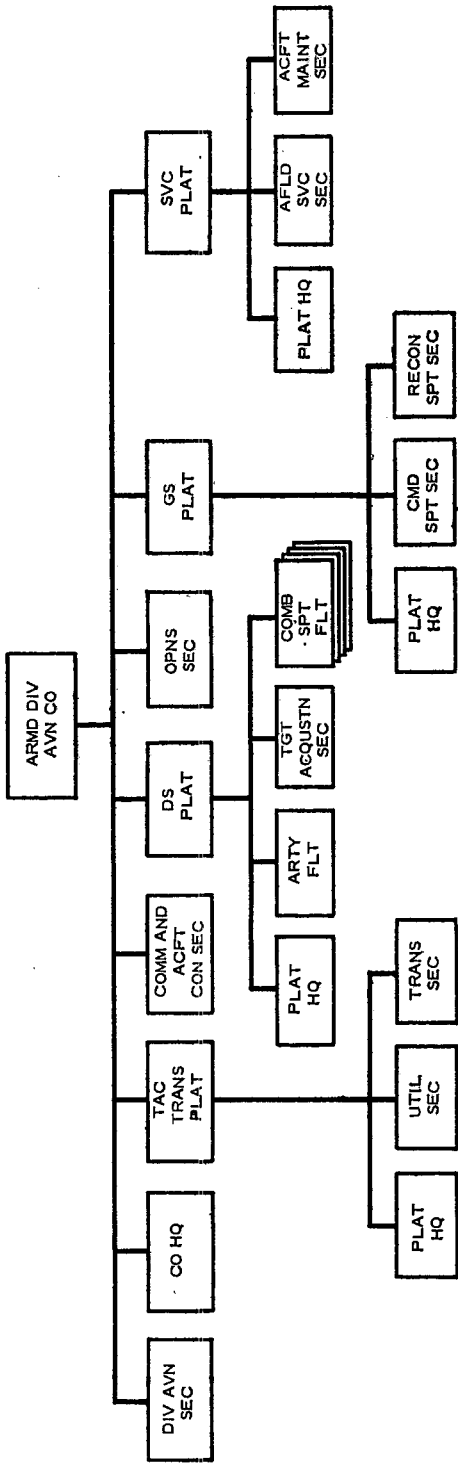


Figure 11-1. Armored division aviation company. (TOE 1-17T).

- d.* Limited movement of troops, supplies, and equipment by air.
- e.* Transporting commanders, staff officers, liaison officers, and messengers by air.
- f.* Performing wire laying, radio relay, and propaganda leaflet missions.
- g.* Providing company administration, company-level logistical support, and organizational aircraft maintenance for the aviation company.
- h.* Capable of 100 percent mobility, when employing organic vehicles and aircraft.
- i.* Supplemental aeromedical evacuation.

11-7. Planning and Coordination

Tactical or administrative planning and coordination for the company will be accomplished by the aviation staff sections at division level. The division aviation officer advises and assists the division commander and his staff in preparing estimates, plans, orders and reports, and coordinating with adjacent and higher unit aviation officers. Lower level planning will be performed by staffs of the supported units headquarters. The commander of the aviation element supporting that unit serves as staff advisor.

Section III. SECTION EMPLOYMENT AND OPERATIONS

11-8. General

The armored division aviation company contains the personnel and equipment necessary to provide continuing and responsive aviation support to the armored division to include the subordinate elements that have the major combat mission. Army aviation support for a combat command is usually allocated in sufficient numbers and type aircraft to provide direct support aircraft down to battalion task force level. The armored cavalry squadron is normally supported with sufficient aircraft to permit employment down to armored cavalry troop level. The actual allocation of aircraft to the artillery flight is not fixed. The assignment of aircraft for the support of division artillery is dependent upon the aerial observation and requirements as dictated by the tactical situation. In many situations, additional aircraft must be added to this flight. Likewise, proper utilization in certain situations will make aircraft from this flight available for the support of other division elements. The aviation company performs internal administration, maintenance, supply and communications. The company is employed as directed by the division commander. The armored division aviation special staff officer exercises operational control of the company.

11-9. Division Aviation Section

a. Mission. The division aviation section is a special staff section. This section provides the commander with timely and accurate advice on Army aviation operations. It also prepares the aviation support plan and the aviation annex to the operations order.

b. Organization. This section consists of the aviation officer, assistant aviation officer, operations officer, operations sergeant, operations specialist, clerk typist, an intermediate-speed radio operator, and two light truck drivers.

c. Duties of Personnel.

- (1) *Division aviation officer.* The division aviation officer is a member of the division special staff and is responsible for the staff functions of the section. He also serves as an advisor to the division commander on all aviation operational matters, and exercises staff supervision of the aviation company and any attached aircraft units as directed by the commander. For additional details, see FM 1-100.
- (2) *Assistant division aviation officer.* The assistant division aviation officer assists the aviation officer in all phases of the operation of the special staff, including supervision of the aviation company. During the absence of the aviation officer, he will represent him in all matters pertaining to Army aviation.
- (3) *Operations officer.* The operations officer will assist the aviation officer as directed, and is responsible with the section for the following functions:
 - (a) Acts as records officer for the section to include maintaining complete files on the operation of the section, records of the status of aircraft, and other records of materiel peculiar to the section.
 - (b) Maintains a situation map from information gathered from all available sources.
 - (c) Coordinates all flights performed by the aviation company with plans of the division staff and of future operations.
 - (d) Assists in the preparation of the aviation annex to the operations order.
 - (e) Coordinates and controls all movements of the section.
- (4) *Operations sergeant.* The operations sergeant will assist the officers of the special staff as directed but will generally work under the direct supervision of the operations officer. He is responsible for—

- (a) Directing the duties of other enlisted personnel within the section.
- (b) Maintaining administrative files and operations maps.
- (c) Maintaining a staff journal.
- (d) Loading, moving, and establishing the section from old into new location.

d. Employment. The staff section will normally be located in the division command post (CP) area in the vicinity of the G2-G3 installation. This location is necessary, so that the section can accomplish its primary function of coordinating Army aviation matters. The section will move with the CP, while maintaining constant communications with the company commander and company operations section. The special staff section is capable of operating with elements at both the main and alternate CP's.

e. Security. The aviation staff section will be dependent upon the division CP security platoon at all times.

f. Special Operations. See FM 1-100.

11-10. Company Headquarters

a. Mission. The company headquarters performs command and administrative control of all elements of the company.

b. Organization. It consists of the company commander, the executive officer, the first sergeant, mess steward, supply sergeant, clerk, cooks, radio operators, truck driver and armorer.

c. Personnel. Key personnel of company headquarters include the commander, executive officer, and first sergeant. Other personnel perform normal company duties.

d. Employment.

- (1) *Principles of employment.* The company commander is responsible for selection and organization of the armored division base airfield. The company headquarters will operate from the base airfield.
- (2) *Factors affecting employment.* The terrain and enemy situation may require dispersion of company elements on one or more satellite airfields; consequently, the location of the company headquarters elements must vary accordingly.

e. Security. Security is the responsibility of the company commander and will be coordinated with elements of the division trains.

f. Special Operations. See FM 1-100.

11-11. Operations Section

a. Mission. The operations section receives, coordinates, and assigns missions to the flight elements of the company.

b. Organization. The operations section consists of the assistant operations officer, 1 operations sergeant, 2 operations specialists, 2 clerk typists, and 2 intermediate-speed radio operators who are also light truck drivers.

c. Duties of Personnel.

(1) *Assistant operations officer.* The assistant operations officer is responsible for—

- (a) Working in close coordination with the operations officer of the aviation staff section and the company commander in assigning missions to the various platoon commanders of the company.
- (b) Maintaining the situation maps and a division area flak map.
- (c) Maintaining up-to-date information on aircraft maintenance within the company.
- (d) Obtaining the latest weather information and computing density altitude.
- (e) Maintaining individual flight records and other administrative matters prescribed under pertinent Army and local regulations.
- (f) Conducting briefings of platoon leaders on all missions, except when the staff operations officer personally conducts the briefing.
- (g) Securing additional assistance from other sections at the base airfield to maintain continuous operation within the section.
- (h) Supervising the loading, moving, and setting up of operations at new locations prior to arrival of aircraft.

(2) *Operations sergeant.* The operations sergeant is responsible for—

- (a) Assisting the assistant operations officer in all section administrative matters.
- (b) Posting the situation maps and the flak map.
- (c) Directing and supervising the duties of other enlisted personnel within the section.

d. Employment. The operations section is normally employed at the base airfield. This section, during combat or field operations, becomes the nerve center of the aviation company and must remain in communication with the aviation staff section, the company headquarters, and the rear echelon platoons. For factors affecting employment, see FM 1-100.

e. Security. Security of the operations section will be provided by the airfield security elements.

f. Special Operations. See FM 1-100.

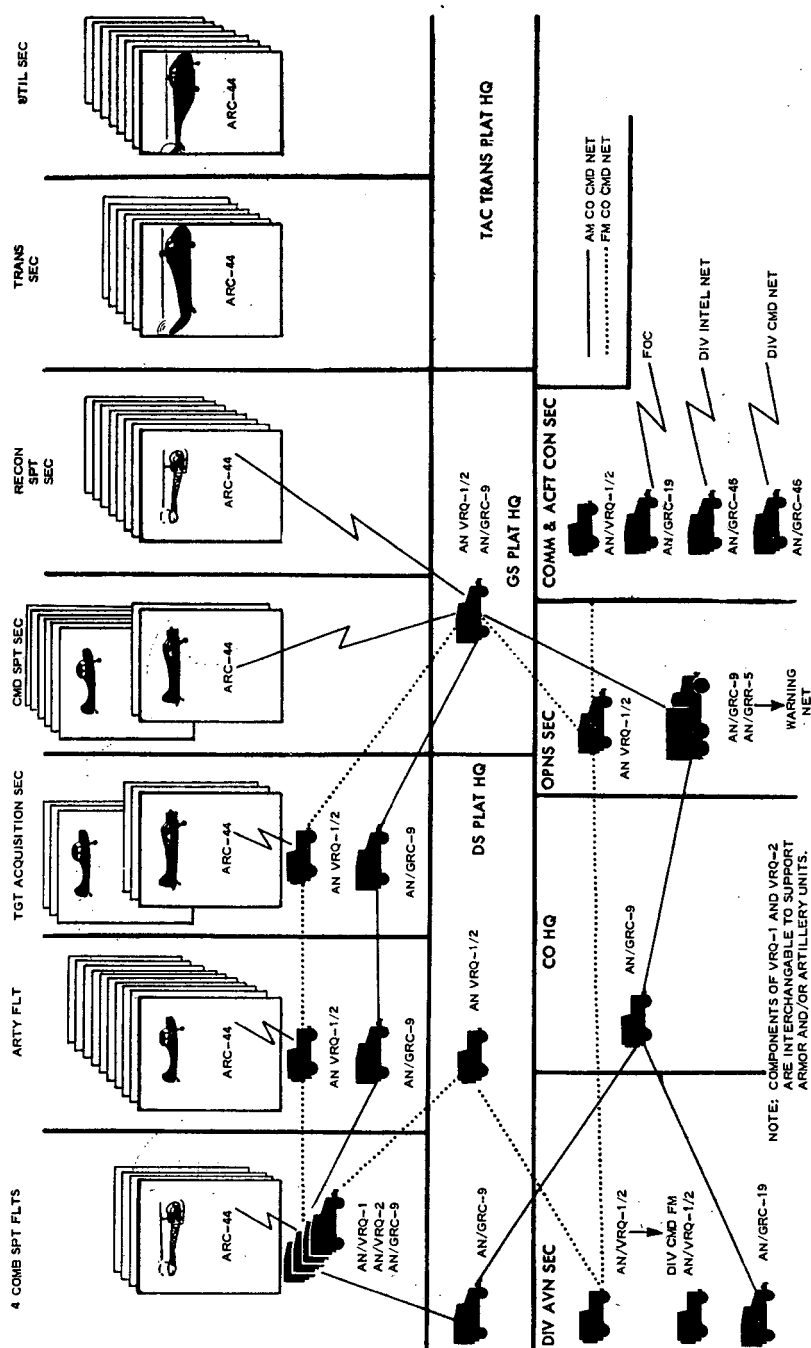


Figure 11-2. Radio net, armored division aviation company.

11-12. Communications and Aircraft Control Section

a. *Mission.* The communications and aircraft control section establishes, operates, and maintains the communications nets of the aviation company, including wire, radio, and teletype (figs. 11-2 and 11-3).

b. *Organization.* This section consists of the aircraft control officer, communications chief, 15 radio operators and mechanics, and a light truck driver.

c. *Duties of Personnel.*

- (1) *Aircraft control officer.* The duties of the aircraft control officer are described in FM 1-100. In addition to these duties, he will supervise the operation and control of terminal traffic.

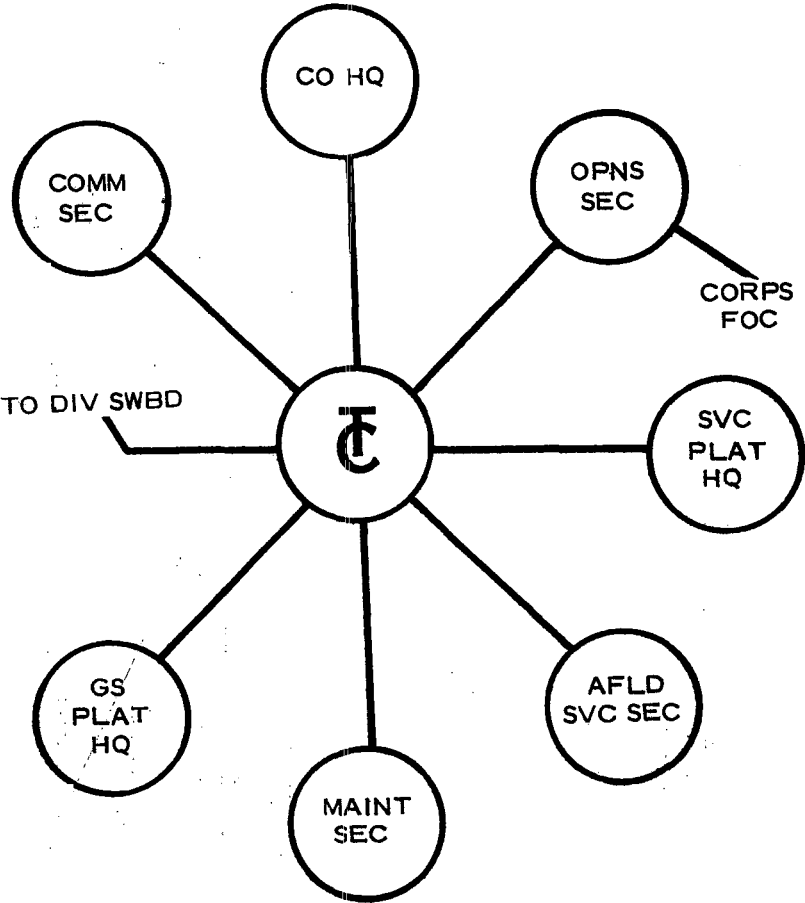


Figure 11-3. Wire net, armored division aviation company.

- (2) *Communications chief.* The communications chief will assist the airfield control officer as directed. He is responsible for section administration and will supervise the loading, movement, and establishment of section areas from old into new locations.
- (3) *Other personnel.* All other personnel of the section perform duties commensurate with assigned MOS.

d. Employment. The section maintains continuous communications surveillance within the company and with higher and adjacent aviation units. It is capable of laying and retrieving wire, establishing relay stations to provide continuous communications within company nets, and performing first and second echelon repair of VHF, UHF, FM and AM radio receivers/transmitters. This section is responsible for the installation and operation of homing type navigational aids for terminal navigational facilities at the base airfield.

e. Security. Security of the communications and aircraft control section will be provided by the security elements of the airfields.

f. Special Operations. See FM 1-100.

11-13. Direct Support Platoon

a. Mission. The direct support platoon with necessary augmentation, provides the basic aviation support elements to be utilized by the combat commands, division troops, division artillery, and the armored cavalry squadron.

b. Organization. The platoon consists of 29 officers and 34 enlisted men. It is composed of—

- (1) *Platoon headquarters.* The platoon headquarters consists of 1 platoon commander, 1 operations sergeant, 2 intermediate-speed radio operators, and 1 light truck driver.
- (2) *Combat support flights (4).* Each combat support flight consists of 1 flight commander, 1 Army aviator, 1 crew chief, and 1 intermediate-speed radio operator in each flight.
- (3) *Artillery flight.* The artillery flight consists of 1 flight commander, 1 liaison officer, 10 Army aviators, 1 maintenance supervisor, 10 crew chiefs, 1 intermediate-speed radio operator, and 1 light truck driver.
- (4) *Target acquisition section.* The target acquisition section consists of 1 section commander, 1 liaison officer, 6 Army aviators, 6 crew chiefs, 1 operations specialist, 1 intermediate-speed radio operator, and 1 light truck driver.

c. Duties of Personnel.

- (1) *Platoon commander.* The direct support platoon commander coordinates and supervises those elements of his platoon that have not been detached to subordinate commands of the division or to other sections of the aviation company. He may augment the company operations section by serving as an assistant operations officer. He is responsible for supervision of training within the platoon, and for placing emphasis on safety, proficiency, and maximum effective utilization of equipment. He prepares a daily status and personnel report for the company commander.
- (2) *Operations sergeant.* The operations sergeant assists the platoon commander as directed. He supervises the duties of other enlisted personnel within the platoon.
- (3) *Combat support flight commanders (4).* Combat support flight commanders function both as special advisors and as coordinators and controllers of aircraft for the supported unit commander. They establish forward airfields as necessary for direct support, exercise operational control over all aircraft attached to the supported unit, and coordinate aviation POL requirements and supplies with the platoon commander when in a direct support role, or with the S4 of the supported unit when in an attached status. They coordinate and control additional aircraft assigned to their flights to insure maximum utilization of aircraft and to prevent duplication of effort. They are responsible for all administrative functions within their flights.
- (4) *Combat support army aviators.* These aviators perform flight and administrative duties as directed by the flight commander.
- (5) *Artillery flight commander.* The artillery flight commander acts as the army aviation special staff officer for headquarters, division artillery. He advises, recommends, and coordinates the utilization of both divisional and non-divisional aviation that has been placed in support of division artillery units. He acts as operations officer for the forward division artillery airfield, assumes responsibility for the administrative duties of the division artillery forward airfield and insures close liaison with the artillery flight commander by use of a liaison officer.
- (6) *Artillery flight army aviators.* These aviators perform flights and other duties as directed by the artillery flight commander.

- (7) *Maintenance supervisor.* The maintenance supervisor is responsible for supervision of maintenance on all aircraft stationed at the division artillery airfield and for all equipment assigned to the artillery support flight. He directs the duties of other enlisted personnel within his section and performs administrative duties as directed by the platoon commander.
- (8) *Target acquisition section commander.* The target acquisition section commander functions both as a special advisor, and as a coordinator and controller of aircraft for the supported unit commander. He establishes forward airfields as necessary for direct support, exercises operational control of additional aircraft attached to the supported unit, and coordinates aviation POL requirements and supplies with the platoon commander when in a direct support role, or with the S4 of the supported unit when in an attached status. He coordinates and controls flights assigned to his section to insure maximum utilization of aircraft and to prevent duplication of effort. He is responsible for all administrative functions within his section.
- (9) *Liaison officer.* The duties of the liaison officer are prescribed in FM 101-5.
- (10) *Operations specialist.* The operations specialist performs administrative duties as required within the section, and supervises the duties of other enlisted personnel assigned to the target acquisition section.
- (11) *Army aviators of the target acquisition section.* Army aviators perform flights and other duties as directed by the section commander.

d. *Employment.* The direct support platoon normally operates from one or more forward airstrips independent of the base airfield. Overall operations are supervised by the platoon headquarters.

- (1) *Direct support platoon headquarters.* Since the platoon normally operates under decentralized control, the platoon headquarters will normally be located at the base airfield.
- (2) *Combat support flights (4).* These 4 flights form the nucleus of the aviation support for the 3 combat commanders and division troops. They operate from landing sites located at those units.
- (3) *Artillery flight.* The artillery flight provides aviation support for the division artillery and the artillery battalions by performing missions involving adjustment of artillery fire, observation, survey, reconnaissance, and battlefield surveillance. This flight must be readily available to the artillery which it supports.

- (4) *Target acquisition section.* The target acquisition section provides the necessary airlift for the electronic surveillance devices in the reconnaissance and surveillance platoon, armored cavalry squadron. This section obtains information of designated areas by use of observation, aerial photography, infrared detection, TV or radar. This section may be attached or placed in direct support of the armored cavalry squadron or remain on a standby basis at an established airfield. For additional information, see FM 17-35.

e. Security. Security for the combat support flights, artillery flights, and the target acquisition section will be provided by the supported unit when in the forward area.

f. Special Operations. See FM 1-100.

11-14. General Support Platoon

a. Mission. The mission of this platoon is to provide a pool of reconnaissance helicopters, observation aircraft, and utility aircraft for the support of combat commands and other division elements. Aircraft not required for combat commands provide supplemental aeromedical evacuation, command and staff transportation, reconnaissance, courier service, limited resupply, and similar missions for other elements of the division.

b. Organization. The platoon consists of 17 officers and 18 enlisted men. It is composed of—

- (1) *Platoon headquarters.* The platoon headquarters consists of a platoon commander, an operations sergeant and an intermediate-speed radio operator.
- (2) *Command support section.* This section consists of a section leader, 7 Army aviators, and 8 crew chiefs.
- (3) *Reconnaissance support section.* This section consists of a section leader, 7 Army aviators, and 8 crew chiefs.

c. Duties of Personnel.

- (1) *Platoon commander.* The general support platoon commander coordinates and supervises those elements of his platoon that are not attached to other sections of the company. He may also augment the company operations section, serving as an assistant operations officer. He is responsible for the supervision of training within the platoon, placing emphasis on safety, proficiency, and maximum effective utilization of equipment. He prepares a daily status and personnel report for the company commander.

- (2) *Operations sergeant.* The operations sergeant assists the platoon commander as directed. He supervises the duties of other enlisted personnel within the platoon.
- (3) *Command support section leader.* The section leader commands the section, supervises individual and section training, and supervises the organizational maintenance of aircraft and equipment within the section. He is responsible for administrative functions and the direction of duties of personnel within his section.
- (4) *Army aviators (command support section).* Army aviators perform flights and other duties as directed by the section leader.
- (5) *Reconnaissance support section leader.* The section leader commands the section and supervises the organizational maintenance of aircraft and equipment within the section. He is responsible for administrative functions, and directs the duties of personnel within his section.
- (6) *Army aviators (reconnaissance support section).* Army aviators perform flights and other duties as directed by the section leader.

d. Employment. The general support platoon is used primarily to augment the direct support platoon and support division troops, division trains, division artillery, and the armored cavalry squadron. The platoon also provides aviation support to division headquarters and other divisional elements. The aircraft assigned to this platoon will not normally be attached to the supported unit. Although the platoon headquarters will normally be at the base airfield, its elements may be employed at any or all of the airstrips and helipads within the division.

e. Security. Security for this section will be provided by the airfield security elements.

f. Special Operations. See FM 1-100.

11-15. Tactical Transport Platoon

a. Mission. This platoon provides the armored division with a limited capability for aerial supply and tactical troop transport.

b. Organization. The tactical transport platoon consists of 21 officers and 16 enlisted men. It is composed of—

- (1) *Platoon headquarters.* The platoon headquarters consists of a platoon commander, operations sergeant, and intermediate-speed radio operator.
- (2) *Transport section.* The transport section consists of a section leader, 11 Army aviators, and 6 crew chiefs.

- (3) *Utility section.* The utility section consists of a section leader, 7 Army aviators, and 8 crew chiefs.

c. Duties of Personnel.

- (1) *Platoon commander.* The platoon commander commands the platoon and acts as a liaison officer between the forward elements of his platoon and the company headquarters at the base airfield. He supervises organizational maintenance and utilization of aircraft assigned to the forward elements. He coordinates with commanders of the supported ground units to insure adequate aviation support, and coordinates with the unit aircraft maintenance officer for the procurement of POL and repair parts and for scheduled maintenance required by his platoon. He is responsible for supervision of training within the platoon, and for placing emphasis on safety, proficiency, and effective utilization of equipment. He prepares a daily status and personnel report for the company commander.
- (2) *Operations sergeant.* The operations sergeant assists the platoon commander as directed. He supervises the duties of other enlisted personnel within the platoon.
- (3) *Transport section leader.* The transport section leader commands the section and supervises the organizational maintenance of aircraft and equipment within the section. He also supervises the administrative functions and directs the duties of personnel within his section.
- (4) *Army aviators (transport section).* Army aviators in this section perform flights and other duties as directed by the section leader.
- (5) *Utility section leader.* The utility section leader supervises the organizational maintenance of aircraft and equipment within his section. He is responsible for administrative functions and directs the duties of personnel within his section.
- (6) *Army aviators (utility section).* Army aviators in this section perform flights and other duties as directed by the section leader.

d. Employment. This platoon usually operates from the division base airfield in general support of all elements of the division on a single mission type basis. This platoon may be utilized for short administrative flights and for positioning POL and other supplies required by other elements of the company. The aircraft of the transport section are normally employed as an entire section or in conjunction with the utility section. The aircraft of the utility sec-

tion may be employed as required or as a section in conjunction with the transport section.

e. Security. Platoon security will be provided by the airfield security element.

f. Special Operations. See FM 1-100.

11-16. Service Platoon

a Mission. This platoon provides organizational maintenance, parts supply, airfield services, and POL for aircraft of all aviation company sections. In addition this platoon provides organizational maintenance, parts supply, and POL for all wheeled vehicles.

b. Organization. This platoon consists of 1 officer, 1 warrant officer, and 53 enlisted men. It is composed of—

- (1) *Platoon headquarters.* The platoon headquarters consists of an aircraft maintenance officer, 1 platoon sergeant, 1 motor sergeant, 2 technical inspectors, 2 aircraft parts specialists, 1 clerk typist, 2 wheeled vehicle mechanics, and 1 wheeled vehicle mechanic's helper.
- (2) *Aircraft maintenance section.* This section consists of an aircraft maintenance supervisor, 1 assistant repair supervisor, 14 helicopter mechanics and 6 helpers, 4 airplane mechanics and 3 helpers, 1 hydraulic repairman, 1 airframe repairman, and 2 electrical repairmen.
- (3) *Airfield service section.* This section consists of a section chief, 4 specialists, and 4 light truck drivers.

c. Duties of Personnel.

- (1) *Maintenance officer.* The aircraft maintenance officer directs the maintenance of company aircraft, wheeled vehicles and all nondivisional attached aircraft. He coordinates with platoon leaders on matters pertaining to scheduled maintenance of aircraft, and establishes procedures for airfield servicing of all aircraft at the base airfield. He supervises the requisitioning, procurement, storage and distribution of POL, equipment and supplies as required by the service platoon. He exercises supervision over the equipment status reporting system within his area of responsibility, the preparation and maintenance of all aircraft records, and is responsible for administrative duties within the service platoon. He is also responsible for the operation of the company motor pool and for test flights of all aircraft. He coordinates with the next higher echelon for aircraft maintenance.

- (2) *Platoon sergeant.* The platoon sergeant is responsible to the platoon commander for the conduct of the platoon. He directs the duties of other enlisted personnel within the platoon, and maintains a constant check on the status of POL, repair, parts supply, wheeled vehicle maintenance, administrative records, and equipment within the platoon. He also supervises the requisitioning, procurement, and distribution of POL products, and performs other duties as directed by the platoon commander.
- (3) *Motor sergeant.* The motor sergeant is responsible for the maintenance, repair, parts supply, POL, and administrative records for wheeled vehicles within the company. He directs and supervises the duties of other enlisted personnel within his section, and performs other duties as directed by the platoon commander.
- (4) *Aircraft maintenance supervisor.* The aircraft maintenance supervisor supervises the organizational maintenance of aircraft within the aviation company and directs the duties of all enlisted personnel within the section. He performs other duties as directed by the platoon commander.
- (5) *Repair supervisor.* The repair supervisor supervises and provides technical assistance on maintenance performed in the section and assists in the supervision of enlisted personnel assigned to the section.
- (6) *Airfield service section chief.* The airfield service section chief supervises all aspects of airfield services, including crash-rescue, night lighting equipment, tiedowns and POL servicing. He is responsible to the maintenance officer for the requisitioning, procurement, storage, and distribution of aircraft POL for the base airfield, and maintains administrative records on aircraft POL for the base airfield. He is responsible for the inspection and condition of all equipment within the section.

d. Employment. The service platoon will be located at the base airfield. The platoon is organized and equipped to permit maintenance teams to be attached to aircraft flights or sections operating from forward landing strips.

e. Security. Security will be passive in nature and will be provided by the airfield security elements.

f. Special Operations. See FM 1-100.

Section IV. MARCHES, BIVOUACS, AND ASSEMBLY AREAS*

11-17. Marches

a. The tactical employment of the armored division will require frequent and timely movements by its combat elements. This will require movement of the aviation company to fulfill its mission of close, continuous aviation support.

b. The aviation company will normally march with the division trains, or as directed by the division commander, and will furnish all phases of aviation support for the march.

c. Elements of the company, particularly elements of the direct support platoon, which are attached or in direct support of combat units, will displace with the supported unit after effecting appropriate coordination with the aviation company.

d. The company is 100 percent mobile.

11-18. Bivouacs and Assembly Areas

When the division goes into bivouac, the aviation company and its elements will establish the necessary airfields and landing areas for continuous aviation support. The base airfield will normally be adjacent to the division main command post. Thorough prior reconnaissance will insure adequate areas and timely occupation.

Section V. ADMINISTRATION*

11-19. Personnel

Personnel of the armored division aviation company are assigned through division personnel channels. The company is responsible for routine company administration. Personnel administration is handled by the division administrative services company.

11-20. Supply

Aircraft supply is maintained by the platoon headquarters of the service platoon. The supporting TAAM unit is responsible for supply of spare parts, components, and replacement aircraft. Established supply procedures will be followed.

Section VI. TRAINING*

11-21. Individual and Section Training

Personnel assigned to the company will normally be service-school trained. Individual and section training follow the same general

* For general principles, see chapter 1.

pattern. The company commander has command responsibility for training of individuals and sections. Sections will be given ample time to train as an integral unit.

11-22. Training With Supported Units

The company will normally be responsible for the training of observers. In addition, it will organize a continuing program of indoctrination and orientation on the proper utilization of Army aircraft and employment of the aviation company in support of the armored division. Elements of the company, particularly elements of the direct support platoon which habitually support the same combat unit, will normally conduct training with that unit. Elements of the general support platoon train with other units of the division and provide aircraft to augment the direct support platoon.

CHAPTER 12

AIRBORNE DIVISION AVIATION COMPANY

Section I. GENERAL

12-1. Purpose

This chapter is a guide for commanders and personnel on the organization and employment of the airborne division aviation company.

12-2. Scope

This chapter provides information for the organization, planning, employment, and training of the airborne division aviation company in sufficient detail to give each element commander the necessary guidelines for employment of his company, platoon, or section. See FM 1-100 for aviation annex to division SOP.

12-3. Mission

The mission of the airborne division aviation company is to provide the division and its elements with aerial observation, supplemental aeromedical evacuation, surveillance, reconnaissance, movement of supplies, transportation, and other aerial missions.

Section II. ORGANIZATION

12-4. Composition

The composition of the airborne division aviation company is shown in figure 12-1.

12-5. Capabilities and Limitations

a. This company provides the following:

- (1) Visual aerial observation, reconnaissance, and surveillance of the battle area to include line of contact and airhead area, and enemy areas within the division zone of action for purposes of locating, verifying and evaluating targets, adjusting artillery and mortar fire, and terrain reconnaissance.
- (2) Aircraft, photographic equipment, and electronic detection devices necessary for the performance of aerial reconnaissance.

sance missions in support of the airborne division cavalry troop.

- (3) Limited aerial photography.
 - (4) Limited aerial movement of troops, supplies, and equipment.
 - (5) Limited battlefield illumination.
 - (6) Command reconnaissance and liaison transportation.
 - (7) Supplemental aeromedical evacuation.
 - (8) Courier and messenger service.
 - (9) Wire laying, radio relay, and propaganda leaflet dissemination.
 - (10) Staff and command planning on employment of Army aviation within the division to include attached Army aviation units not organic to the division.
- b.* This company is 100 percent mobile when using all organic aircraft and vehicular equipment.
- c.* This company is 100 percent air transportable.
- d.* Elements of the company are attached to or used in direct support of battle groups, division artillery or other elements of the division. Terrain limitations and tactical considerations preclude operation of the aviation company from one centralized airfield.

12-6. Planning and Coordination

a. Planning and coordination is accomplished by frequent and continuous contact between element commanders, the company commander, commanders of supported units and the division aviation officer. Planning and coordination require the highest degree of skill and foresight since the overall mission of the division will be affected.

b. Planning by company and element commanders is based on pertinent annexes to the division operations and administrative orders and on supplementary instructions. Specific tasks are then assigned to elements and sections under their control. The company commander will assist and advise the aviation special staff officer in preparation of the aviation annex to operations plans and orders, and other plans and orders relative to employment of the aviation company.

Section III. SECTION EMPLOYMENT AND OPERATIONS

12-7. General

An airborne operation is classed as a special operation; however, an airborne division aviation company operation is routine since its mission and assignment are similar to other aviation companies.

Although the company is organic to the command and control battalion, operational control is placed with the division aviation officer and, consequently, the company is retained under the direct command of the division commander.

12-8. Division Aviation Section

a. Mission. The division aviation section coordinates the activities of the aviation company with the division and staff and with other elements of the division. The division aviation officer exercises staff supervision over all organic or attached aircraft units and advises the division commander and staff on their employment.

b. Organization. This section is a special staff section and is normally located in the division main command post. It consists of the division aviation officer, the assistant division aviation officer, an operations sergeant, a clerk typist, and a light truck driver-radio operator.

c. Duties of Personnel.

- (1) *Division aviation officer.* The division aviation officer performs the following duties:
 - (a) Exercises special staff supervision over all Army aviation operational matters within the command, including technical aspects of administration, training, and operation of Army aircraft. He exercises operational control over all organic and attached aircraft units as directed by the division commander.
 - (b) Assists the commander and the general and special staffs in preparing Army aviation portions of estimates, plans, orders, and reports.
 - (c) Advises the commander and staff on technical aspects, capabilities, limitations, and operational characteristics of Army aircraft.
 - (d) Prepares training directives for Army aviation units and individual proficiency training.
 - (e) Formulates and supervises the flying safety program. Reviews Army aircraft accident reports and recommends appropriate corrective action.
 - (f) Prepares, coordinates, and monitors the flying hour program.
- (2) *Assistant division aviation officer.* The assistant division aviation officer performs the following duties:
 - (a) Assists the division aviation officer in accomplishing duties enumerated in (1) above.
 - (b) Provides a capability for 24-hour employment during tactical operations.

- (c) Establishes liaison with the division fire support coordination center.
- (d) Serves as division representative to the joint Army/Air Force air traffic coordination center when joint utilization of air space within the airhead objective area is required.
- (3) *Other personnel.* The operations sergeant, clerk typist, and light truck driver perform the duties specified for their MOS in AR 611-201. The light truck driver also performs duties as radiotelephone operator in the division aviation section.

d. Employment. The division aviation section is a normal element of the division main command post. During the planning phase for an airborne operation, the division aviation section will be located at the same marshaling area as the division planning staff.

(1) *Principles of employment.*

- (a) The division aviation section is included in the tables of organization and equipment of the aviation company, but the section functions as a special staff section reporting directly to the chief of staff or to other staff agencies as directed by the commander.
- (b) The division aviation officer advises the division commander and staff on the employment of organic and attached Army aviation.

(2) *Factors affecting employment.*

- (a) *Planning.* Airborne operations require detailed advance planning to integrate the employment of Army aviation into the scheme of maneuver of the airborne commander. The division aviation officer participates in the planning with the division general and special staff.
- (b) *Coordination with Air Force and Air Defense agencies.* Employment of Army aviation in airborne operations requires close coordination with supporting Air Force and Air Defense agencies for utilization of air space and identification of Army aircraft. At the planning level for joint operations, the division aviation section sends an Army representative to the air traffic coordination center to plan for joint use of airspace en route to, and within, an airhead objective area. The air traffic coordination center plans, coordinates, and controls the activities of the operating agencies for air traffic control. The Army flight operation center controls Army air traffic in the airhead objective area. This agency is organic to the division aviation company, but operates under the

supervision of the division aviation officer during air-head operations.

- (c) *Allocation of aircraft.* The division aviation officer advises the commander regarding the allocation and utilization of Army aircraft to support the ground operation. For the initial assault, this allocation is made in the division operations order. Subsequent allocations or changes in allocation are made on additional orders after coordination with the general staff and approval by the commander.
- (d) *Decentralized execution.* Airborne assault operations require decentralization of aircraft and their allocation to the supported unit for immediate responsiveness to the commander.
- (e) *Availability of airlift.* The amount and type of assault airlift available to the command usually determines when the division aviation section will move into the airhead. The division aviation officer and his assistant will either be airlanded in the airhead objective area or will enter the area in Army aircraft. Enlisted members of the division aviation section may either parachute into the objective area or airland with elements of the main command post.

e. Security. The division aviation section is normally located within the main command post and is not capable of providing its own security.

f. Special Operations. For special operations, the division aviation section may be augmented or reduced in strength as required by the tactical situation. See FM 1-100.

12-9. Company Headquarters

a. Mission. The company headquarters provides command and administrative control and support for the organic elements of the unit. It contains supervisory personnel who assist the commander in administration, discipline, supply, maintenance of equipment, and in formulating plans and orders.

b. Organization. The company headquarters consists of the commander, the executive officer, and sufficient enlisted personnel to provide normal unit administration, messing, limited unit and signal supply support, and operate assigned motor vehicles.

c. Personnel. In addition to normal company administrative personnel, the airborne division aviation company headquarters has two photo lab specialists and two technical inspectors. The executive officer is also the chief instrument flight examiner for the company.

d. Employment.

(1) *Principles of employment.*

- (a) The company headquarters is not normally committed to airborne assault or ground combat operations as a unit. Only those elements of company headquarters which are required to support tactical operations enter the airhead area during the assault phase. Remaining elements are phased into the airhead area with the follow-up echelon or with the link-up force.
 - (b) Personnel and equipment may be introduced into the airhead area of operations by parachute, by airlanding (using assault transport type aircraft), by organic aircraft, or by a combination of these methods.
- (2) *Factors affecting employment.* Prior to the employment of the aviation company, the following factors must be considered:
- (a) Depth of airborne operations.
 - (b) Availability of assault and heavy lift transport aircraft.
 - (c) Friendly and enemy air activity.
 - (d) Terrain and weather.
 - (e) Logistical resupply.
 - (f) Regulation of air space over the airhead area of operations requiring coordination of Air Force troop transport, tactical air support, and Army aviation support and air defense activities.

e. Security. This element is without organic automatic weapons and is incapable of independent active defense. Defense must be an integrated perimeter type which is passive in nature. Where feasible from a terrain or tactical standpoint, elements of the company may position themselves near tactical or support units to achieve greater security.

f. Special Operations. In addition to the capability of airborne type operations, this unit may be employed in desert, jungle, or arctic operations. Amphibious type operations can be accomplished when the division is committed in ground role. Planning guides and factors peculiar to each type operation are discussed in detail in FM 1-100.

12-10. Operations Platoon

a. Platoon Headquarters.

- (1) *Mission.* The platoon headquarters receives, processes, and coordinates the Army aviation support for divisional units. The intelligence section of the aviation company is a part of this section.

(2) *Organization.* The operations platoon consists of an operations officer, an assistant operations officer, an intelligence officer, and sufficient enlisted operations and intelligence specialists to conduct and supervise effective operational and intelligence missions of the aviation company.

(3) *Duties of personnel.*

(a) *Operations officer.* The operations officer is responsible for establishing and organizing the base airfield. He formulates plans, and recommends and issues orders for utilization and operation of organic aircraft in support of combat operations. He plans for movement of the unit and establishes terminal control procedures during visual and instrument flight weather conditions in coordination with flight operations center, air traffic control section, approach control section, and communications section.

(b) *Assistant operations officer.* The assistant operations officer assists the operations officer in the execution of his normal duties, provides a capability for 24-hour operation, and monitors the instrument proficiency and training of aviators in the company.

(c) *Intelligence officer.* The intelligence officer coordinates the intelligence effort of the company, collects and forwards to higher echelons all intelligence material reported by organic and attached aviation, and maintains the company intelligence situation map.

b. *Flight Dispatch Section.*

(1) *Mission.* The mission of the flight dispatch section is to coordinate the dispatch of all aircraft of the aviation company.

(2) *Organization.* The flight dispatch section consists of a senior flight operations specialist and a flight operations specialist.

(3) *Duties of personnel.* The senior flight operations specialist and the flight operations specialist provide this section with a 24-hour capability in the coordination and dispatch of aircraft assigned and attached to the aviation company.

c. *Air Traffic Control Section.*

(1) *Mission.* The mission of the air traffic control section is to monitor and coordinate arrivals and departures at the base airfield.

- (2) *Organization.* The air traffic control section consists of three senior control tower operators and three control tower operators.
- (3) *Duties of personnel.* The three senior control tower operators and three control tower operators maintain a 24-hour capability in the control of air traffic in the vicinity of the base airfield.

d. Approach Control Section.

- (1) *Mission.* The mission of the approach control section is to provide terminal guidance and IFR approach capabilities at the base airfield.
- (2) *Organization.* The approach control section consists of three senior landing control operators and three landing control operators.
- (3) *Duties of personnel.* The three senior landing control operators and the three landing control operators provide a 24-hour GCA capability at the base airfield.

e. Communications Section.

- (1) *Mission.* The mission of the communications section is to establish radio and wire communications within the aviation company (figs. 12-2 and 12-3) and operate radio sets in the division command, intelligence, and administrative nets.
- (2) *Organization.* The communications section consists of a communications officer, a communications chief, and sufficient radio and switchboard operators to accomplish the assigned mission.
- (3) *Duties of personnel.* The communications officer supervises the establishment of company radio and wire nets, assists in establishing navigational aids, and supervises personnel of the section. The communications chief assists the communications officer in his duties. Other enlisted personnel of the section serve as radio operators and switchboard operators.

12-11. Flight Operations Center

a. Mission. The mission of the flight operations center is to provide air traffic control in keeping with the air space utilization plan, provide aircraft identification information to AADCP, disseminate nuclear artillery and aircraft warnings (both friendly and enemy), and disseminate weather information for Army aircraft operating in the airhead and/or division area.

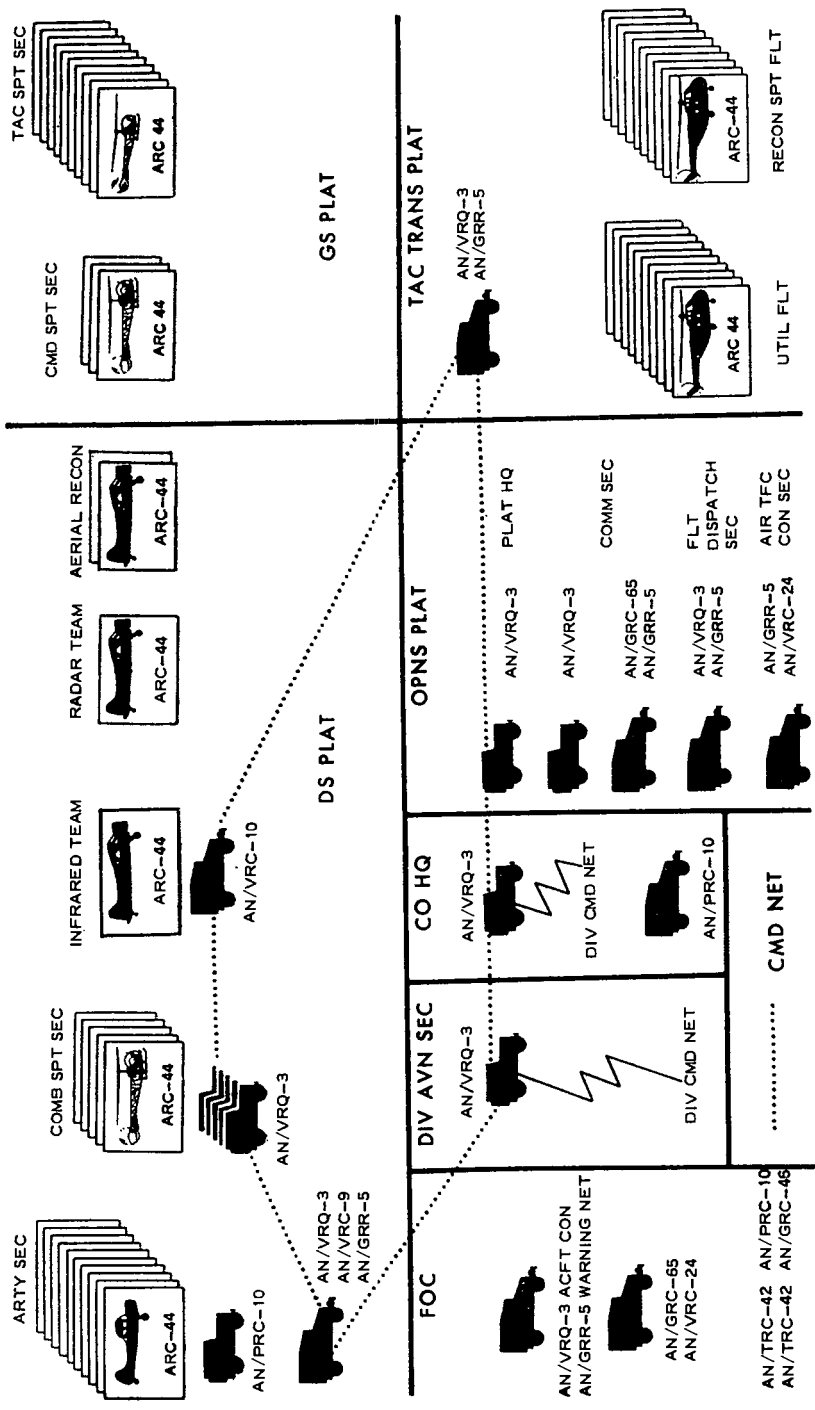


Figure 12-2. Radio net, airborne division aviation company.

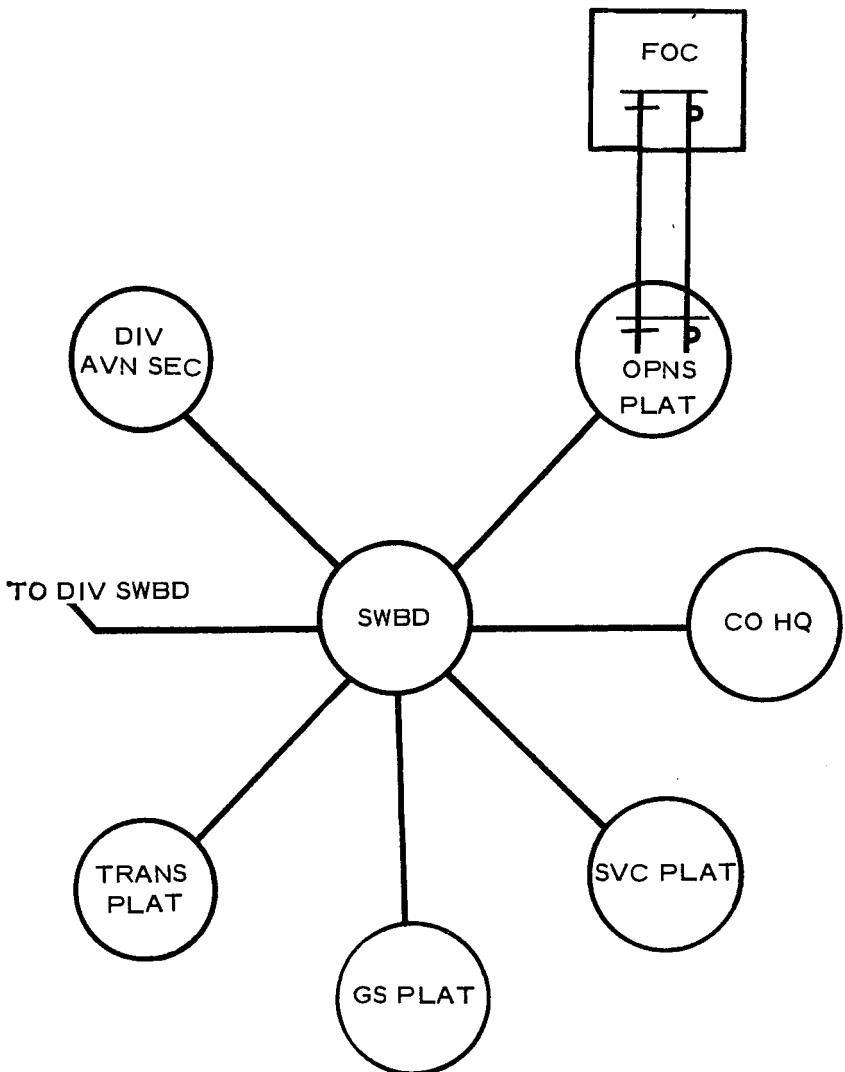


Figure 12-3. Wire net, airborne division aviation company.

b. Organization. Officer and enlisted personnel operate the air-ground communications equipment and maintain a pictorial representation of Army air traffic for control purposes.

c. Duties of Personnel.

- (1) *Flight operations center commander.* The flight operations center commander is responsible for the regulation and control of Army aircraft within the airhead objective area. This is accomplished through coordination with Army and/or Air Force air traffic control agencies at higher and/or lateral echelons of command. He is also

responsible for the training and discipline of organic personnel and the maintenance of assigned equipment.

- (2) *Assistant flight operations commander.* The assistant flight operations commander assists the section commander in the discharge of his duties and the section mission.
- (3) *Enlisted personnel.* These personnel operate air-ground radio equipment, teletypewriter equipment and maintenance plotting boards and air traffic control logs, accept flight plans, issue air traffic clearances, and disseminate warnings, both friendly and enemy. The light truck drivers operate, maintain, and service organic vehicles, and also perform duties of radio-telephone operators.

d. *Employment.*

(1) *Principles of employment.*

(a) Normally, this section is employed in support of all Army air traffic within the airhead objective area. It may, however, be employed in part to control and regulate Army aircraft supporting the independent action of a battle group. The flight operations center may assume the duties of higher headquarters flight operations center to a limited extent, for a limited period of time.

(b) To establish early control of air traffic, some portion of the flight operations center should normally be in the parachute or airlanded element of the company making the initial assault. An aerial FOC is operated from an observation aircraft on an austere basis during the initial assault until the airlanded FOC is established in the airhead.

(c) The flight operations center should be located immediately adjacent to the airhead sector control center (Air Force).

(d) For details of employment and operation of an FOC, see chapter 16.

- (2) *Factors affecting employment.* The same factors which affect the employment of the company headquarters and/or the aviation company are applicable to this section.

e. *Security.* See paragraph 12-9e.

f. *Special Operations.* Flight operations center is capable of supporting the aviation company in all type operations. Planning guides and factors applicable to other major elements of the company during special operations are also pertinent to this section. See FM 1-100 for further details.

12-12. Direct Support Platoon

a. Mission. This platoon provides the ground commander with the aviation support necessary to successfully complete his mission.

b. Organization. The direct support platoon consists of a platoon headquarters, an artillery section, five combat support sections, and a target acquisition section.

c. Duties of Personnel.

- (1) *Platoon leader.* The platoon leader supervises all activities of the platoon. He coordinates with the operations officer on all tactical employment of aircraft, requests additional aircraft support, when necessary, from the general support platoon through the operations officer, and is responsible to the company commander for the training, maintenance, and welfare of his platoon.
- (2) *Combat support section commanders.* The combat support section commanders act as aviation officers on the staffs of the supported battle groups. They exercise operational control over all elements of the aviation company attached to or placed in direct support of the battle group, and advise battle group commanders on all matters pertaining to Army aviation.
- (3) *Artillery section commander.* The artillery section commander supervises the accomplishment of the primary missions assigned to the artillery flight, i. e., observation, target acquisition, aerial adjustment of artillery, tank, mortar, and rocket fires. He acts as special staff officer on the staff of division artillery, and he exercises operation control over attached personnel and aircraft from the general support platoon.
- (4) *Target acquisition section commander.* In addition to commanding the section, the section commander coordinates the training and operation of the section with the reconnaissance troop. He also requests, as needed, helicopters from the tactical transport platoon for the positioning of reconnaissance patrols.
- (5) *Enlisted personnel.* These personnel are assigned to the platoon as operations specialists, aircraft mechanics, and radio operators.

d. Employment.

- (1) *Principles of employment.* See FM 1-100 for general principles of employment. The platoon is habitually employed by sections in direct support of or attached to divisional units. These attachments are normally made

prior to entry into an airhead area; however, because of the disposition of the airborne operation, portions of the platoon will often have to move into the airhead area proper before these attachments are effected. Allocation of aviation support is accomplished in the division operations order and is changed only after coordination with the general staff.

- (a) *Artillery section.* The artillery section supports the division artillery by target location and adjustment of artillery and mortar fire. It will normally operate as a unit, but may employ individual aircraft when the division is operating in combat team formation. It is employed in a secondary role to collect information for intelligence purposes.
 - (b) *Combat support section.* The combat support sections will habitually be attached to or placed in direct support of each battle group. They provide the battle group commanders with increased battlefield mobility which assists them in the direction, coordination, and control of their combat forces. In addition, these sections provide the battle group commanders with experienced aviation personnel as special staff officers who advise and assist them on Army aviation. Additional aircraft and pilots are drawn from the artillery section general support platoon, and tactical transport platoon to support the battle group.
 - (c) *Target acquisition section.* This section is organized for either close or distant reconnaissance and surveillance. It can obtain information of designated areas by the use of visual, photographic, and airborne electronic reconnaissance methods. It normally trains and operates with the reconnaissance troop organic to the division, but may be employed in support of any of the division tactical units.
- (2) *Factors affecting employment.* These factors are the same as those which are common to company headquarters and the operations section. For detailed discussion of factors affecting employment, see FM 1-100.

e. *Security.* Since the direct support platoon is never employed as a unit during tactical operations, there are no requirements for overall platoon security; however, the combat support sections are employed with the battle groups and are included in the overall security plan of the battle group. Other elements of the platoon, since they are incapable of active defense, position themselves near

tactical or support units to achieve greater security. See FM 1-100 for details on aircraft security.

f. Special Operations. See FM 1-100.

12-13. General Support Platoon

a. Mission. This platoon provides reinforcement to the direct support platoon and transportation for the division commander and staff.

b. Organization. The general support platoon consists of a platoon headquarters, command support section, and a tactical support section.

c. Duties of Personnel.

- (1) *Platoon leader.* The platoon leader supervises all activities of the platoon. He coordinates with the operations officer on all tactical employment of aircraft, and is responsible to the company commander for the training, maintenance, administration, and welfare of the platoon.
- (2) *Command support section.* Officer personnel perform duties of rotary wing aviators in support of division headquarters command element.
- (3) *Tactical support section.* The senior officer in this section assumes the duties of section commander. Other aviators perform duties of rotary wing aviators in general support of the division.
- (4) *Enlisted personnel.* These personnel perform the duties of aircraft crew chiefs and light truck drivers. MOS's and job descriptions are defined in AR 611-201.

d. Employment.

- (1) *Principles of employment.* See FM 1-100 for general principles. This platoon is normally employed to support and augment all sections of the direct support platoon and to furnish support to division headquarters and other elements of the division.
- (a) *Command support section.* The command support section, with its reconnaissance helicopters, is employed to provide air transport for the division commander and his staff. It may have aircraft and personnel attached to, or detached from it, to support its own mission or the missions of other units within the division.
- (b) *Tactical support section.* The tactical support section provides rotary wing reconnaissance aircraft for the division. These aircraft are normally used to support

the command and staff sections of the division headquarters for command liaison, short reconnaissance missions, courier service, and supplemental aeromedical evacuation.

(2) *Factors affecting employment.* See paragraph 12-10d.

e. *Security.* The principles of security which apply to the direct support platoon also apply to this platoon.

f. *Special Operations.* See FM 1-100.

12-14. Tactical Transport Platoon

a. *Mission.* The general mission of the tactical transport platoon is to increase the mobility and combat efficiency of the division through one, or more, of the following specific missions:

- (1) Aerial transport of personnel and cargo.
- (2) Aerial resupply.
- (3) Aerial (helicopterborne) assault.
- (4) Aerial movement of vehicles.
- (5) Reconnaissance.
- (6) Special missions such as wire laying, supplemental aeromedical evacuation, courier, command liaison, and radio relay.

b. *Organization.* This platoon is organized with a platoon headquarters, a reconnaissance support section, and a utility section.

c. *Duties of Personnel.*

- (1) *Platoon leader.* The platoon leader is responsible for the training, discipline, control, and tactical employment of the platoon. He advises the company commander on the current status, readiness, and capability of the platoon. He advises the supported unit commander on the tactical employment of the platoon.
- (2) *Section commanders.* In addition to supervising training, and insuring proper discipline and exercising control over their sections, the section commanders assist the platoon leader in the performance of his assigned duties.
- (3) *Enlisted personnel.* These personnel perform the duties of aircraft crew chiefs and light truck drivers. MOS's and job descriptions are defined in AR 611-201.

d. *Employment.*

- (1) *Principles of employment.* The platoon may be committed by section or in its entirety in general support of the divisional units. To insure maximum utilization of its

capabilities, the tactical transport platoon is normally retained under company control and allocated to subordinate units of the division for specific missions.

(a) *Utility section.* Aircraft in this section are normally employed in support of those missions requiring aircraft of less than section strength.

(b) *Reconnaissance support section.* This section is normally employed on missions requiring the entire section or platoon.

(2) *Factors affecting employment.* Piecemeal employment by single aircraft of this platoon should be avoided.

e. *Security.* The same principles of security outlined for the direct support and general support platoons apply to this platoon.

f. *Special Operations.* See FM 1-100.

12-15. Service Platoon

a. *Mission.* The service platoon provides a capability for maintenance of organic aircraft; refuels and services organic, attached, and transient aircraft; has limited pioneer capability for repairing and/or maintaining base airfield; installs airfield lighting equipment; and provides crash and alert crew services.

b. *Organization.* This platoon consists of a platoon headquarters, an aircraft maintenance section, and an airfield service section.

c. *Duties of Personnel.*

(1) *Platoon headquarters.*

(a) *Maintenance officer.* The maintenance officer commands the platoon and supervises the accomplishment of the platoon mission. He is also responsible for coordination of the unit maintenance effort on organic aircraft and maintains aircraft records, technical publications and statistical records as required on aircraft status, flying time, and maintenance.

(b) *Platoon sergeant.* The platoon sergeant assists the platoon leader in supervising the duty performance of assigned personnel.

(c) *Aircraft parts specialist.* The aircraft parts specialist maintains the authorized supply level of aircraft spare parts and necessary parts records.

(2) *Aircraft maintenance section.*

(a) *Aircraft maintenance officer.* The aircraft maintenance officer is responsible to the platoon leader for accomplishing maintenance on assigned aircraft. He maintains required records reflecting aircraft status and

maintenance, and coordinates with lateral and higher echelons on aircraft maintenance problems.

- (b) *Maintenance supervisor.* The maintenance supervisor assists the aircraft maintenance officer in supervising aircraft maintenance, and performs the additional duty of maintenance technical inspector.
 - (c) *Enlisted personnel.* These personnel are qualified aviation mechanics, and perform maintenance on assigned aircraft. Qualifications and duties are set forth for each MOS in AR 611-201.
- (3) *Airfield service section.*
- (a) *Section chief.* The section chief is responsible to the platoon leader for aircraft refueling and servicing, lighting of airfields and heliports, and crash and alert duties. He also supervises maintenance of assigned equipment.
 - (b) *Enlisted personnel.* These personnel perform duties within the section commensurate with MOS as crash-rescue specialists and as petroleum storage and airfield service specialists. Detailed MOS qualifications and duties are defined in AR 611-201.

d. *Employment.*

- (1) *Principles of employment.* This section habitually operates in support of the aviation company. The principles governing employment of other major elements of the company are also applicable to the employment of this section.
- (2) *Factors affecting employment.* These factors are the same as those which are common to company headquarters and the operations section.

e. *Security.* See paragraph 12-12e.

f. *Special Operations.* See FM 1-100.

Section IV. MARCHES, BIVOUACS, AND ASSEMBLY AREAS*

12-16. Marches

Because of the disposition of airborne operations, the aviation company will seldom move as a unit. Company headquarters and other ground elements of the company are normally airlanded in the airhead area late in the assault phase. Elements which have been attached to subordinate major units of the division are airlanded with these units. Under normal conditions the company

* For general principles, see chapter 1.

moves as a unit to marshalling and assembly areas either before or immediately following completion of an airborne operation.

12-17. Bivouac and Assembly Areas

Bivouac and assembly areas for the company should be located adjacent to the base airfield to facilitate operations. Following linkup, the company is assembled in a refitting area or areas where supporting logistical units provide support in preparing the unit for further operations. In the selection of these areas, consideration should be given to proper drainage, available road nets, cover, concealment and dispersal of vehicles, aircraft and facilities.

Section V. ADMINISTRATION*

12-18. Personnel

All personnel service requirements for the company such as law and order, prisoners of war, recovery and disposition, and morale are coordinated with the command and control battalion. In addition, the battalion administration center prepares all reports and requests for personnel actions. These are submitted on an informal basis by the aviation company. The company maintains only those records required for daily operation. This permits the company headquarters section to be utilized more effectively in the command and supervision of all elements of the company.

12-19. Logistics

a. *Supply.* The aviation company operates in several supply channels. TOE equipment, fuels, lubricants, ammunition, etc., are obtained either direct from the division supply points or from S4, command and control battalion. The battalion S4 maintains hand receipt files for each section of the company, and each section normally deals directly with the S4 on all issues and turn-in's of TOE property. Transportation air items are requisitioned through the maintenance battalion organic to the division.

b. *Evacuation of Disabled Aircraft.* Aircraft which cannot move with the division are reported to the supporting maintenance battalion for evacuation and are safeguarded by the company until retrieved by the maintenance battalion. Aircraft disabled behind enemy lines are disposed of in accordance with prior disposition plans and the existing tactical situation.

c. *Medical.* Company casualties will be evacuated to the nearest medical facility.

* For general principles, see chapter 1.

12-20. Maintenance

The aviation company performs organizational maintenance on all items of equipment organic to the company. The maintenance battalion supporting the aviation company is responsible for all field services pertaining to aircraft except organizational maintenance. The services include repair, parts supply, recovery, and inspector services. Close coordination between the organizational maintenance officer and the supporting maintenance battalion is essential. Each aircraft has an assigned crew chief who supervises or performs maintenance on the aircraft.

Section VI. TRAINING*

12-21. Individual Training

Individual training in the company is designed to keep personnel qualified in their basic MOS's and aeronautical ratings. This training is integrated, where possible, into the company's daily activities in support of the division.

12-22. Section Training

a. Section training is a necessary supplement to company and individual training due to the diversity of missions and capabilities of the aviation company and its elements. It is designed to produce smooth functioning teamwork capable of successful mission accomplishment under varying conditions of employment.

b. Individuals should be cross-trained to give the sections a greater degree of flexibility.

12-23. Training With Supported Units

This training, conducted jointly between personnel of the aviation company and other units within the division, facilitates the successful accomplishment of the company's support missions. In addition, it provides elements of the division with trained aviation specialists, who, through close contact with elements of the aviation company, are better prepared to advise their commanders on employment of Army aviation. Subjects taught in this phase of training should include, but not be limited to, the following: observation training; aerial movement of supplies; command, liaison and communications; aerial evacuation of casualties; air-lift of troops, and air mobility for land reconnaissance.

* For general principles, see chapter 1.

CHAPTER 13
AIR AMBULANCE COMPANY AND HELICOPTER
AMBULANCE DETACHMENT

To be published.

CHAPTER 14

ARMY MISSILE COMMANDS

Section I. UNITED STATES ARMY MISSILE COMMAND (AIR TRANSPORTABLE)

14-1. Purpose

This chapter is a guide for commanders, staff officers, Army aviators, and other Army personnel concerned with the employment of Army aviation in support of the United States Army missile command (air transportable).

14-2. Scope

This chapter covers mission, composition, basic principles, methods of employment, operations, and various services and support functions associated with Army aviation in the United States Army missile command (air transportable).

14-3. Mission

The mission of Army aviation with the air transportable missile commands is to provide—

- a.* Aerial observation (visual and electronic).
- b.* Reconnaissance and surveillance (day and night) within capabilities of the aircraft.
- c.* Target acquisition for the purpose of verifying and evaluating targets, adjusting fire, and terrain study.
- d.* Limited aerial photography.
- e.* Limited air movement of troops, supplies, and equipment within the combat zone.
- f.* Supplemental aeromedical evacuation.
- g.* Wire laying and radio relay.
- h.* Courier and message center service.
- i.* Command reconnaissance and aerial transportation.

14-4. Composition

The composition of the Headquarters and Headquarters Company Army Missile Command (air transportable) is shown in figure 14-1.

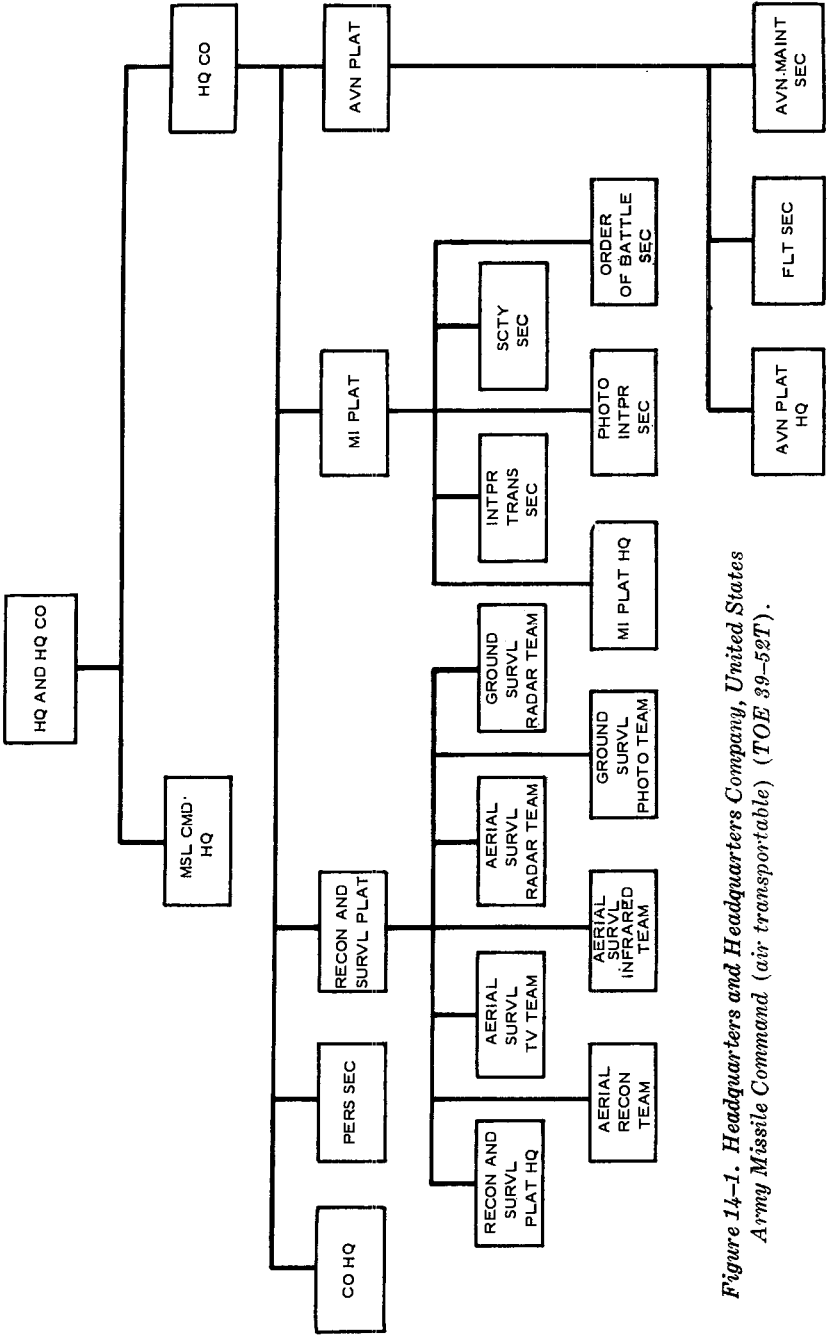


Figure 14-1. Headquarters and Headquarters Company, United States Army Missile Command (air transportable) (TOE 39-52T).

14-5. Assignment

The aviation platoon and the aerial surveillance platoon are organic to Headquarters and Headquarters Company, United States Army Missile Command (air transportable).

14-6. Capabilities and Limitations

The two platoons are capable of fulfilling the missions outlined in paragraph 14-3; however, the aerial surveillance platoon is dependent upon outside agencies for radar positioning and vectoring when employing sensory devices.

14-7. Command, Control and Coordination

a. The aviation platoon commander is the aviation officer for the air transportable missile command. As aviation officer, he furnishes the commander and staff with information and advice concerning aviation matters and is responsible for coordinating the functions of subordinate aviation platoon sections with the aerial surveillance platoon to assure that personnel and aircraft function effectively in response to operational requirements.

b. Technical matters involving aviation personnel and equipment are a responsibility of the aviation platoon commander and the aerial surveillance platoon commander. Nontechnical administrative matters are a responsibility of the headquarters company commander.

c. Operation and training requirements are placed directly upon the platoons by commanders and staff officers in accordance with unit SOP. The direction of flight operations implementing such requirements is the responsibility of the aviation platoon commander and the aerial surveillance platoon commander.

d. Generally, unit SOP will provide for aerial reconnaissance and target acquisition functions to be under the staff supervision of the command S2, troop movements by organic aircraft under the S3, supply movement and medical evacuation under the S4, and aerial communications support under the command signal officer.

14-8. Employment

a. *Aviation Platoon.*

(1) *General.* The aviation platoon of the air transportable army missile command will normally be employed near the command post to facilitate maintenance, security control, and service support.

(2) *Platoon headquarters.* The platoon headquarters is the

nerve center of the aviation platoon and consists of the aviation officer, operations officer, and three enlisted personnel. This platoon coordinates and assigns missions to the various sections and teams of the platoon.

- (a) The duties of the aviation officer parallel those of an aviation staff officer at division, corps or Army.
- (b) The operations officer is responsible for planning and coordinating the employment of the platoon in performance of the platoon mission. These responsibilities include—
 - 1. Planning the operations of organic aircraft based on mission requirements established by appropriate sections of the command.
 - 2. Submitting and/or processing of necessary flight plans.
 - 3. Supervising the control of local air traffic.
 - 4. Supervising the installation of lighting and navigational equipment.
 - 5. Establishing and maintaining communications with the command and/or supported unit.
- (3) *Flight section.* The flight section provides airplanes and helicopters to accomplish the following missions:
 - (a) Troop and cargo movement, including movement of specialist teams or patrols.
 - (b) Supplemental aeromedical evacuation.
 - (c) Command reconnaissance and aerial transportation.
 - (d) Aerial photography.
 - (e) Wire laying and radio relay.
 - (f) Courier and message center service.
 - (g) Column control.
- (4) *Aviation maintenance section.* The aviation maintenance section can provide organizational as well as limited field maintenance for organic aircraft. In addition, the section stores and issues aviation fuels, spare parts, and expendables. It also provides electrical power for navigational devices and for interior lighting.

b. Aerial Surveillance Platoon.

- (1) *General.* The aerial surveillance platoon of the air transportable army missile command provides necessary aerial platforms, equipment and personnel for aerial and ground visual, photographic, and electronic surveillance in support of the missile command.

- (2) *Platoon headquarters.* The platoon headquarters personnel coordinate and assign missions and provide a photo laboratory for film processing.
- (a) The aerial reconnaissance, aerial TV, aerial infrared and aerial radar teams obtain information by the use of visual, photographic and electronic reconnaissance methods. The teams may be committed by team or operate with the platoon in general support of the missile command as a whole.
- (b) The ground surveillance radar and photographic teams operate to obtain information of designated areas by the use of photo and radar surveillance methods. The teams will operate well forward in the unit area to facilitate obtaining information.

14-9. Marches, Bivouacs, and Assembly Areas

The aviation platoon and aerial surveillance platoon are 100 percent mobile. Moves will be made when the tactical situation requires it, or as directed by higher headquarters. Bivouac and assembly areas will be as close to missile command headquarters as principles of dispersion, terrain, and the tactical situation permit. For additional discussion and general principles, see paragraphs 1-5 through 1-7.

14-10. Administration

a. Personnel.

- (1) Mess, personnel, and administrative functions will be provided by the headquarters and headquarters company.
- (2) Medical service is provided by a medical aidman attached to the platoons from the medical section of the supply company organic to the missile command. This medical aidman can also be used during aeromedical evacuations as required.

b. Logistics.

- (1) Aircraft and aircraft parts, components, and expendables will be furnished from Transportation Corps units through the supply company and headquarters company of the command.
- (2) POL products normally will be furnished by the supply company organic to the missile command, or by supported units.
- (3) Other supply functions will be accomplished through or by the headquarters and headquarters company of the missile command.

c. Maintenance.

- (1) The aviation platoon and aerial surveillance platoon are responsible for first and second echelon maintenance of all equipment and aircraft except for specialized aviation signal equipment and vehicles. Second echelon maintenance of vehicles will be performed by the headquarters and headquarters company and by the supply company of the missile command. Field maintenance of aircraft will be furnished directly from Transportation Corps aircraft maintenance units. When not available, this maintenance of aircraft will be conducted by the maintenance support section of the aviation platoon.
- (2) First echelon maintenance of specialized aviation signal equipment will be performed by crew chiefs and operators authorized each team. Second echelon maintenance of specialized aviation signal equipment will be performed by the signal company organic to the missile command.

d. For general principles, see chapter 1.

14-11. Training

The mission of the missile command requires that platoon commanders and section leaders give special attention to training with other arms and services. Operating with allied forces requires sections to be able to operate independently of normal command and control agencies. For general principles of training, see paragraphs 1-8 through 1-14, chapter 1.

**Section II. SKY CAVALRY BATTALION, UNITED STATES ARMY
MISSILE COMMAND (MEDIUM)****14-12. Purpose**

This section is a guide for commanders and staff officers in the employment of a sky cavalry battalion. The tactics and techniques of employment are applicable to all phases of combat conducted by the battalion, and by companies within the battalion.

14-13. Scope

The contents of the section are broad in scope and cover organization, tactical doctrine, principles of employment, and logistical support of the battalion.

14-14. Mission

The sky cavalry battalion performs reconnaissance in support

of the United States Army missile command (medium), through combined use of ground and air reconnaissance elements over wide fronts and extended distances. It has the additional mission of obtaining information necessary for damage assessment of a nuclear weapon strike.

14-15. Composition

The composition of the sky cavalry battalion, United States Army missile command (medium), is shown in figure 14-2.

14-16. Assignment

The sky cavalry battalion is organic to a United States Army missile command (medium).

14-17. Capabilities and Employment

The sky cavalry battalion has the following capabilities:

- a. Performs visual and electronic reconnaissance and surveillance, day and night, within the capabilities of available electronic detection devices, and assigned manned and drone aircraft.
- b. Locates and verifies information for nuclear weapons strikes.
- c. Obtains damage assessment of those strikes.
- d. Performs aerial photography.
- e. Performs radiological and CBR survey.
- f. Provides command and liaison transportation.
- g. Provides resupply of elements within the battalion using organic aircraft and ground vehicles.
- h. Provides unit level medical service to include emergency medical treatment, intrabattalion medical evacuation, and medical supervision of sanitation.

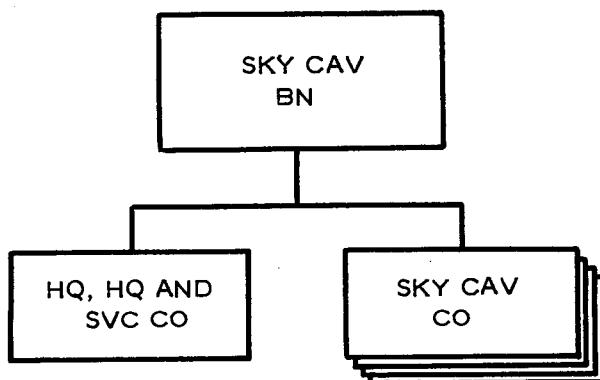


Figure 14-2. Sky Cavalry Battalion, United States Army Missile Command (medium).

i. Conducts special forces type missions and pathfinder activities to include terminal navigational control of aircraft.

14-18. Reconnaissance and Surveillance

The battalion is capable of employment in the following types of reconnaissance and surveillance roles:

a. *Battle Reconnaissance and Surveillance.* Battle reconnaissance and surveillance missions are accomplished by visual observation, airborne and ground mounted radar, listening posts, and dismounted patrols. These operations are best executed by the combat units of battle group size and smaller; therefore, performance of battle reconnaissance is rarely conducted by the sky cavalry battalion.

b. *Close Reconnaissance and Surveillance.* Close reconnaissance and surveillance provides information upon which a force commander can base tactical decisions. It provides information of enemy installations and operations in a tactical area which is within range of friendly supporting weapons. The mobility of the sky cavalry battalion adapts itself to this type mission when employed with reconnaissance and surveillance elements of the supported force. Close reconnaissance and surveillance missions are conducted by concentrating all available visual means, electronic detection-intrusion devices and aircraft to—

- (1) Conduct a systematic search of areas, exits, and zones, with emphasis placed on areas of enemy activity and installations. When the enemy is located, constant surveillance must be retained with continuous reports of dispositions.
- (2) Airlift patrols to operate as dismounted patrols in areas where verification of potential nuclear targets is required.

c. *Distant Reconnaissance and Surveillance.* The sky cavalry battalion is most effective in performing distant reconnaissance and surveillance to obtain information of the enemy in an area that is beyond the immediate range of the supported forces. This information is essential to the supported force commander for planning purposes. The air mobility of the battalion provides the capability of determining potential nuclear targets through use of available electronic detection-intrusion devices. Once the target is located, verification is accomplished by use of airlifted, dismounted patrol action. The sky cavalry battalion must obtain this information without engaging the enemy, so that the basic

mission of target acquisition through reconnaissance is not jeopardized. Dismounted patrols or special force type patrols must be recovered by organic airlift means at prearranged times and locations. When these missions are conducted beyond the range of the supported force artillery, long range artillery and close tactical air support may be required. This may be particularly desirable where helicopters are employed during daylight hours.

14-19. Planning and Coordination

a. The sky cavalry battalion operates under the control of the commanding general of the missile command. Organization of letter companies within the battalion is such that one or more companies may be attached to a major subordinate element of the supported force. In this type operation, the company operates independently of the missile command and the company commander controls the action and movement of elements of the company under command of the major subordinate element of the supported force.

b. The commanding general of the missile command directs the employment of the sky cavalry battalion through the missile command G2 and G3 staff sections. Close coordination between these staff sections determines the successful employment of the battalion.

c. Coordination and control within the battalion is facilitated by the flexibility of its organization. Elements of the various platoons may be combined for special missions.

d. The sky cavalry battalion is designed to operate over extreme distances with all elements well dispersed. During offensive operations by the supported forces, the battalion assists by detecting and verifying potential nuclear targets, conducting damage assessment of those targets, and conducting radiological surveys of critical points in an objective area.

e. Planning for reconnaissance and surveillance operations is similar to planning for other combat operations, except for additional considerations given to technical problems peculiar to a sky cavalry battalion. Extent of planning varies with the scope of the operation of the supported force and available time. Planning must take into consideration the battalion mission, available electronic detection-intrusion devices, available aircraft, logistical support and intelligence evaluation. Close coordination must be effected between the sky cavalry battalion and command staff section if the operational plan is to be successful.

14-20. Headquarters and Headquarters Company (Employment and Operations)

Headquarters and headquarters company is organic to the sky cavalry battalion. This company contains the battalion headquarters, battalion headquarters section, battalion communications platoon, support platoon, supply section, maintenance section, personnel section, and a medical section.

a. Company Headquarters.

- (1) *Mission.* The mission of company headquarters is to provide command, administration, communication, medical support, supply, and maintenance to the sky cavalry battalion.
- (2) *Personnel.* Key personnel of company headquarters include the battalion commander, executive officer, adjutant, intelligence officer, operations officer, supply officer, communications officer, maintenance officer, and surgeon. For a discussion of their duties, see FM 101-5.

b. Principles of Employment. The sky cavalry company is a highly mobile unit which under conditions of dispersed combat provides information of potential nuclear targets and a damage assessment of those targets. The company is equipped with aircraft, TV systems, electronic detection-intrusion devices, aerial cameras, and photographic processing equipment. The utility helicopters organic to the transport flight provide air transportation for the airborne reconnaissance platoon. In its normal role, this platoon can operate deep in enemy-held territory for extended periods. The reconnaissance and surveillance platoon serves as the electronic eye for the missile command. It is equipped to perform both close and distant reconnaissance and surveillance missions. Organic ground surveillance and position fixing and radar tracking provide the platoon with security and extended air operations during inclement weather. The inherent flexibility of organization enables the company commander to employ the company by separate platoons or as teams composed of elements of the platoons.

c. Factors Affecting Employment. Factors which affect the employment of the reconnaissance company are—

(1) *Aircraft.*

- (a) Vulnerability of airplanes and helicopters to enemy action.
- (b) Relatively large landing areas required for airplanes.

- (c) Aircraft availability.
- (d) Operational characteristics of communications equipment as to range and reliability.
- (2) *Weather.* Sudden unfavorable weather changes may have an adverse effect on employment of the reconnaissance company. Icing conditions at low altitude will have serious effect on aircraft operation. Severe weather conditions may necessitate delaying flight activities.
- (3) *Fire support.* The lack of fire support may preclude use of aircraft in some areas. In distant reconnaissance missions, successful completion may depend on the tactical air support provided.
- (4) *Training.* The ability of the company to perform its mission will depend on the training and ability of the aircraft pilots, electronic specialists, and reconnaissance elements.

d. Security. The reconnaissance company has limited capability for combat. For this reason, security is provided by early warning accomplished by observation and surveillance with coordinated use of all electronic detection-intrusion devices available in the company.

e. Special Operations. Elements of the airborne reconnaissance platoon with proper training can operate as pathfinder personnel. For additional details, see FM 1-100.

14-21. Sky Cavalry Company (Employment and Operation)

a. Composition. The composition of the sky cavalry company is shown in figure 14-3. This section is capable of performing necessary administration, mess, and supply activities.

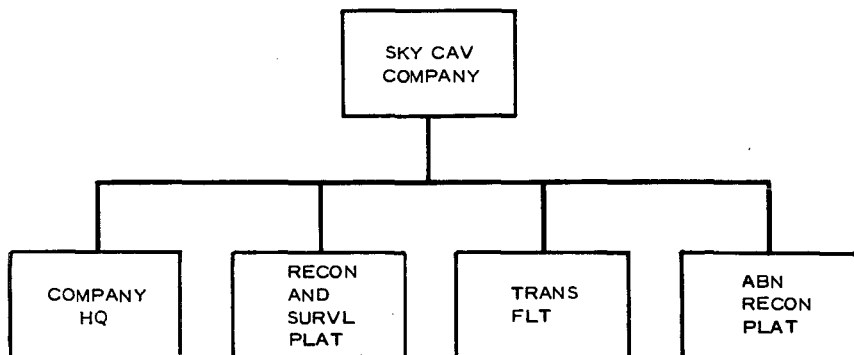


Figure 14-3. Sky cavalry company.

b. Mission. The sky cavalry company is organized and equipped to conduct the following missions—

- (1) Perform reconnaissance over wide fronts and extended distances through the use of a combination of ground and air reconnaissance elements.
- (2) Provide security by surveillance using airborne and ground-based radar and infrared, chemical, biological, and radiological detection devices.

c. Capabilities. The company has the following capabilities—

- (1) Provides limited security.
- (2) Independent action.
- (3) Provides limited aerial resupply with organic airplanes and helicopters.
- (4) Redeploys rapidly.
- (5) Conducts pathfinder activities to include assisting in navigation and control of aircraft in an objective area; reconnoiters for and recommends suitable landing or drop zones; and marks landing zones and sites for delivery of air transported forces and aerial resupply.
- (6) Individuals can fight as infantrymen.

d. Duties of Personnel.

- (1) *Company headquarters.* The company commander is assisted by the operations, maintenance, and communications officers, and the platoon leaders. Normal enlisted personnel are organic to the company headquarters.
- (2) *Reconnaissance and surveillance platoon leader.* The reconnaissance and surveillance platoon leader advises the company commander and executive officer in the employment of aircraft, drones, and ground surveillance radar within his platoon. He advises in the selection and assignment of flight personnel. When aircraft of separate sections of the platoon are grouped together for a specific mission, the platoon leader is responsible for grouping and designating an officer to command the group. He advises the company commander in proper employment of the drone section and the ground surveillance radar. He is responsible for proper supervision of training.
- (3) *Transport flight leader.* The transport flight leader assists and advises the company commander and executive officer in the employment of assigned helicopters. He

advises in the selection and assignment of flight personnel to the transport flight and supervises training for all personnel in his flight.

- (4) *Airborne reconnaissance platoon leader.* The airborne reconnaissance platoon leader assists and advises the company commander and executive officer in the employment of his platoon in security missions, security during displacement, and in bivouac. Depending on the company mission, he is responsible for proper organization of his platoon into patrols or special force type units.

14-22. Marches, Bivouacs, and Assembly Areas

Airfields are selected after coordination is accomplished with the command staff. Each sky cavalry company is normally responsible for selection and development of its own airfield. A single airfield may be used when the battalion operates as a whole. For additional discussion and general principles, see paragraphs 1-5 through 1-7, chapter 1.

14-23. Administration*

a. *Personnel.* Personnel administration is provided by the battalion personnel section under supervision of the battalion adjutant. The battalion personnel section normally will be attached to the command AG section in tactical situations. Specialists contained in the squadron headquarters section normally process matters relating to training of the battalion.

b. *Logistics.* Logistical support of the squadron is provided by the support platoon of headquarters, and headquarters and service companies. Normally, a battalion trains area will be established for the purpose of supporting companies of the battalion. The area will contain the support platoon and battalion maintenance section located in the vicinity of battalion headquarters airfield. In addition to normal characteristics of a supply area, the trains area will be located on terrain suitable for accommodating, handling, loading, and departure of organic aircraft. Class IIIA supplies will be provided for ground vehicles from the trains area. The support platoon will refuel from the missile command supply point. Companies will dispatch aviation fuel trucks to the missile

* For general principles, see chapter 1.

command supply point for aviation POL. For extended reconnaissance missions, delivery of prepackaged aviation POL to pre-arranged refueling points may be necessary.

c. Maintenance. Organizational maintenance is the responsibility of the battalion. Field maintenance is provided by the supporting Army aircraft repair detachment for organic aircraft, and the ordnance battalion of the support group, missile command, for ground vehicles.

14-24. Training *

a. Individual Training. Maintenance and operator personnel of electronic detection-intrusion devices organic to the battalion receive training in these fields prior to assignment. The airborne reconnaissance platoons receive instruction in weapons, scouting and patrolling, reconnaissance techniques, familiarization with organic aircraft, in-flight procedures, and general safety precautions around aircraft. Designated elements of the platoon should receive training in pathfinder techniques.

b. Basic Unit Training. Commanders of small units must be trained in air planning procedures, characteristics, and operational capabilities of the electronic devices. Flight exercises are conducted for unit teams employing vectoring radar. These exercises will increase in scope and duration as the training progresses. It is desirable that organic aircraft be utilized in all phases of training.

c. Advanced Unit Training. Command post exercises are conducted to increase staff planning efficiency. Following these exercises, companies are brought together and all elements participate in battalion problems. When all organic elements of companies are proficient in concurrent employment, the battalion is then employed with exercises conducted by the missile command. In each phase of training, previous training is continued and amplified. Intelligence training is of particular importance with greatest emphasis placed on timely and exact information of the enemy.

* For general principles, see Chapter 1.

CHAPTER 15

AVIATION TROOP ARMORED CAVALRY REGIMENT

To be published.

CHAPTER 16

OTHER AVIATION UNITS

Section I. GENERAL

16-1. General

Army aviation elements are found in various service units and separate combat organizations not previously discussed in this manual.

16-2. Organization

These elements are organized into sections designed to support the specific needs of the unit to which assigned. They vary in size, but normally consist of 2 or 3 fixed and/or rotary wing aircraft.

16-3. Mission

The mission of these sections is to provide immediately available aviation support for command and control, reconnaissance, courier, and liaison purposes.

16-4. Employment and Operations

a. Principles of Employment.

- (1) Aviation sections are normally under the staff supervision of the S3 of the unit to which assigned. Approval and assignment of flight missions is accomplished by the S3 (or assistant S3) in coordination with the aviation section commander who advises him on the employment, capabilities and limitations, and availability of pilots and aircraft.
- (2) To fulfill its missions, which are primarily command and administrative in nature, the aviation section must be readily available to the commander and staff officers of the parent organization. It should be located on an airstrip in close proximity to the command post of the unit.
- (3) Diversity of missions and the small number of aircraft available in the sections require close coordination of

mission assignment to achieve maximum results from the employment of the sections.

b. Factors Affecting Employment.

- (1) These sections are dependent upon the parent unit for mess, supply, and other administrative functions.
- (2) Minimum maintenance personnel are provided these sections. Sections depend upon the supporting TAAM units for backup support to a greater degree than the major Army aviation units previously discussed. If these sections are located so that backup support by TAAM units is not feasible, additional maintenance personnel must be assigned or attached to the section. For details of organization, mission, and employment, see FM's (app. I) which govern the employment of the organizations to which these Army aviation sections are organic.

Section II. SIGNAL AIR PHOTO REPRODUCTION AND DELIVERY COMPANY (DELIVERY PLATOON)

Note. For details of mission, organization, functions, equipment, and duties of personnel, see FM 11-51.

16-5. Mission

The delivery platoon provides expeditious delivery of air reconnaissance photographs to the using units on a 24-hour basis.

16-6. Composition

The composition of the delivery platoon is shown in figure 16-1.

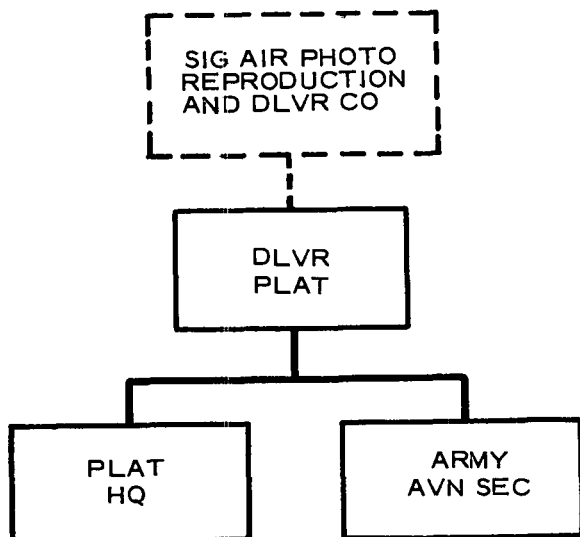


Figure 16-1. Signal air photo reproduction and delivery company (delivery platoon) (TOE 11-54C).

16-7. Employment and Operations

a. Principles of Employment. The delivery platoon uses organic Army aircraft to pick up and deliver photographic prints and negatives. Negatives provided by the Air Force are delivered (normally negative and 2 prints) to the air reconnaissance support battalion. Photographic prints prepared by the reproduction platoon of the company are delivered to army, corps, and division headquarters, and to other agencies as directed.

b. Factors Affecting Employment. The principal factor affecting the employment of the delivery platoon is weather. When weather conditions prevent air delivery of photographic prints, they must be delivered by motor messengers provided by platoon headquarters.

Section III. AVIATION OPERATING DETACHMENT (ARMY)

16-8. Purpose

This section describes the organization, operation, and principles of employment of the aviation operating detachment (Army), which provides operational assistance and service to Army aviation elements in the combat and communications zones.

16-9. Scope

The organization and employment of the AOD is discussed in sufficient detail to guide the commander in training and employing the detachment.

16-10. Mission

The mission of the AOD is to facilitate Army flight operations by providing flight information and planning data; coordination of day, night, and instrument flights; en route navigation aids; air traffic control and operations service for Army aviation units.

16-11. Composition

The composition of the AOD for permanent or semipermanent installations is shown in figure 16-2. To obtain the flexibility and mobility desired for tactical situations, this organizational structure is modified as shown in figure 16-3. The AOD must be attached to another unit for administration, mess, supply, and vehicular maintenance.

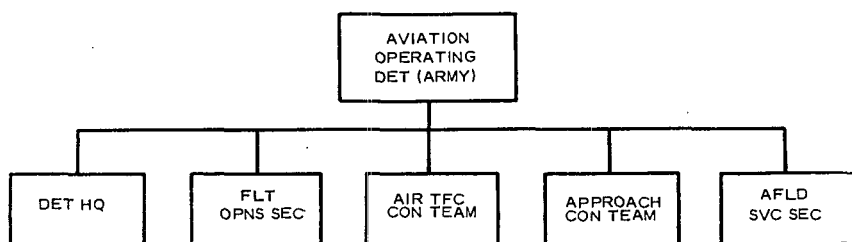


Figure 16-2. Aviation operating detachment (Army) (TOE 1-207D).

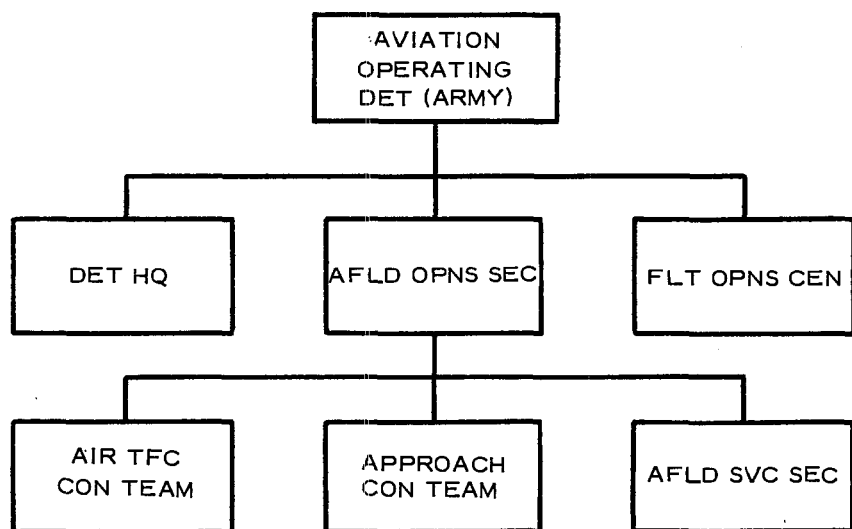


Figure 16-3. AOD (Army) organized for combat.

16-12. Major Items of Equipment

Major items of equipment authorized for the AOD include—

a. One FOC van and tractor with an installed air traffic control console; map and plotting boards; teletypewriters; UHF, VHF, FM, and AM radios; and electrical generators.

b. A GCA radar set, with UHF, VHF, and FM radios and their electrical generators.

c. An L/MF radio homing beacon with electrical generators.

d. A runway light set and one heliport light set with electrical generators.

e. An Army aircraft crash truck with firefighting equipment set.

f. Three gasoline tank trucks with filters and water segregators.

g. Additional UHF, VHF, and FM radios with electrical generators.

h. Two $\frac{1}{4}$ -ton trucks, each with trailer, one $\frac{3}{4}$ -ton truck, and three $2\frac{1}{2}$ -ton trucks, each with one $1\frac{1}{2}$ -ton trailer for transporting detachment personnel and equipment.

Note. Additional radios and electrical generating equipment are supplied as replacements.

16-13. Assignment

Normal assignment of the AOD is one per corps, field army, and/or major Army airfield in the communications zone.

16-14. Capabilities and Employment

The AOD is capable of establishing and operating the following on a continuous basis:

- a.* A major Army airfield which provides the following facilities:
 - (1) Flight operations and planning data.
 - (2) Navigational facilities at the airfield.
 - (3) Runway and heliport lighting.
 - (4) Terminal air traffic control and instrument approach facilities.
 - (5) Servicing and minor maintenance for transient aircraft.
- b.* A flight operations center (FOC) which provides—
 - (1) En route air traffic control under all flight conditions.
 - (2) Integration of Army flight operations with the existing air defense systems.
 - (3) Warning and in-flight assistance to Army aircraft.
 - (4) Aviation weather information (provided by an attached weather team).

16-15. Security

The AOD is capable of self-protection only by individual weapons. Airfield security is provided by larger units using the airfield or by attached security forces.

16-16. Planning and Coordination

a. Air traffic control and navigation systems are a command responsibility. The aviation staff officer at each level is responsible for the establishment and operation of these systems. The air traffic control systems must be closely integrated into the air defense system. Where coordination with other services is

necessary to avoid confusion and duplication, the Army aviation officer at the appropriate headquarters will establish such liaison.

b. AOD's function under the direct supervision of the aviation staff officer at the level to which these units are assigned; normally, at field army and each corps. The detachment commander (airfield operations officer) is responsible for the operation of the base airfield at which the detachment is located, and for coordinating activities of aviation units located at, or using facilities of, the base airfield. Such activities include—weather service by means of attached weather team, terminal and en route navigation, terminal traffic control, establishment of communication (figs. 16-4 and 16-5), transient aircraft servicing, dispersion, and local security.

c. The detachment commander is responsible for providing equipment and personnel to establish and operate the FOC. This segment of the detachment will be established in the vicinity of the

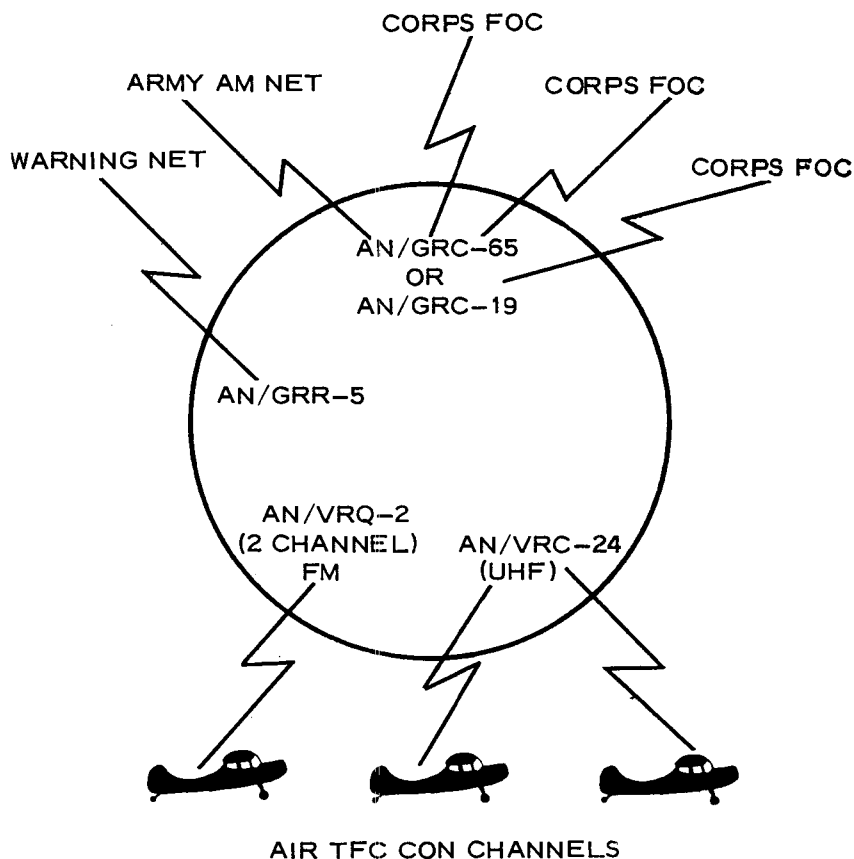


Figure 16-4. Radio net, flight operations center.

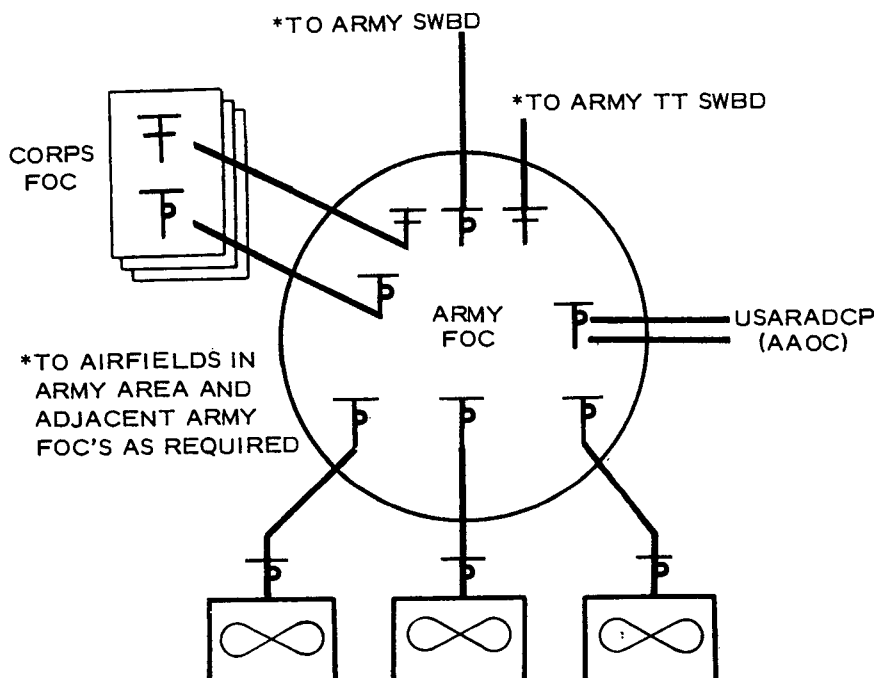


Figure 16-5. Wire net, flight operations center.

primary air defense command post of the area to which assigned. The aviation staff officer of the headquarters concerned will exercise control of the FOC.

16-17. Employment and Operations

Tactically the AOD will normally be employed under the organization depicted in figure 16-3. Discussion of individual sections of the AOD follows this concept of employment.

16-18. Detachment Headquarters

a. Mission. The detachment headquarters provides normal supervisory functions and internal command for the detachment.

b. Organization. Administrative and supply personnel are authorized to perform command and administrative duties normal to a small unit.

c. Equipment. Normal equipment required for administration of the unit is authorized.

d. Duties of Personnel.

- (1) *Detachment commander.* The detachment commander performs dual functions as commanding officer of the detachment and as airfield operations officer. As detachment commander, he has duties (a) through (h) below; as airfield operations officer, duties (i) through (p).

- (a) Commands the detachment.
- (b) Trains the detachment in conformance with Army training program to attain training objectives.
- (c) Insures efficient detachment administration and supply systems.
- (d) Insures maintenance of equipment assigned to the detachment.
- (e) Insures preservation of the health and physical fitness of his men.
- (f) Maintains the detachment morale and discipline at high standards.
- (g) Organizes local security of the airfield.
- (h) Organizes and supervises the displacement and the location of elements of the base airfield to the commands assigned.
- (i) Is responsible to the command Army aviation officer for establishment and operation of the airfield to include all navigation facilities; represents the aviation officer in airfield traffic operations.
- (j) Prepares and submits for approval to the field army headquarters (through traffic control channels) airfield traffic patterns, instrument holding patterns, instrument letdown procedures, and weather minimums for the airfield.
- (k) Provides flight plan information and submits all flight plans to the FOC. (Clearance authority rests with FOC officer in charge.)
- (l) Coordinates local air traffic and airfield operations with aviation officers of aviation elements using the airfield.
- (m) Prepares and submits to FOC for dissemination, information concerning the local airfield control zone and navigational aids status (NOTAMS, etc.).

- (n) Gives immediate notification to FOC of variation to or malfunction of airfield navigational aids or terminal facilities.
 - (o) Maintains current operations map to show air traffic control and navigation systems, and restricted and prohibited areas.
 - (p) Maintains current files of information on air traffic control, navigation facilities, frequencies, codes, identification procedures, and other material pertinent to Army aviation in area of responsibility and adjacent areas.
- (2) *Operations sergeant.* The operations sergeant serves as detachment first sergeant and as airfield operations sergeant, and performs the following duties:
- (a) Acts as assistant to the detachment commander.
 - (b) Provides link between the commander and enlisted personnel.
 - (c) Prepares the morning report, duty roster, and sick report.
 - (d) Acquires knowledge of the various duties performed by detachment personnel and of each individual's qualifications.
 - (e) Assists the commander in organizing the airfield and assumes the duties of the flight operations officer (assistant detachment commander) when directed.
- (3) *Other personnel.* Key personnel in the detachment are the supply sergeant, first cook, and detachment clerk. The cook and clerk are normally attached to the unit which is responsible for rations and administration.

16-19. Airfield Operations Section

a. Mission. The airfield operations section collates and disseminates essential flight planning data, and coordinates and supervises the functions of the air traffic control team, approach control team, and the airfield service team. The operations section establishes and maintains the airfield telephone system.

b. Organization. This section is composed of the air traffic control team, the approach control team, and the airfield service section. Personnel are provided by the detachment headquarters and the flight operations sections.

c. Equipment.

- (1) A teletypewriter is authorized for transmission and receipt of NOTAMS, weather information, flight plans, etc. It is normally connected directly with the FOC.
- (2) A switchboard, with telephone wire, is authorized for establishing the airfield telephone system.
- (3) Map, plotting, flight scheduling, and bulletin boards may be constructed locally.

d. Duties of Personnel.

- (1) *Operations officer.* See paragraph 16-18d(1).
- (2) *Flight operations officer.* The flight operations officer is the assistant detachment commander and the principal advisor to the detachment commander on all airfield matters. He assists and acts for the commander during his absence or when authorized. He is also the detachment communications officer. His duties are a combination of operations and communications.
- (3) *Operations sergeant.* See paragraph 16-18d(2).
- (4) *Flight operations specialist.*
 - (a) Provides information and assistance to the flight operations officer in performance of his duties.
 - (b) Assists the operations sergeant in the installation, operation, and maintenance of the airfield operations office.
 - (c) Assists and advises Army aviators in preparing flight plans, to include briefing on air routes, charts, codes, frequencies, procedures, etc.
 - (d) Keeps operations map, charts, and files posted with latest flight, airfield, and weather information.
- (5) *Communications personnel.* Communications personnel of the airfield operations section include teletypewriter operators, switchboard operators, radiotelephone operators, and radio repairmen, who perform duties commensurate with their job title.

16-20. Air Traffic Control Team (Tower)

a. Mission. The mission of the air traffic control team (tower) is to control terminal air traffic within the airfield control zone.

It is responsible for issuance of clearances and information to aircraft to prevent collision between—

- (1) Aircraft operating on the ground at the landing area.
- (2) Aircraft and vehicles operating on the landing area.
- (3) Aircraft landing and taking off in the traffic pattern.
- (4) Aircraft operating under instrument flight conditions within the airfield control zone, to include holding patterns and “stacking” when control has been released to the tower by FOC.

b. Organization. The team is composed of an air traffic supervisor and controllers.

c. Equipment. Equipment consists of UHF, VHF, and FM radios, with electrical generators.

d. Duties of Personnel.

- (1) Air traffic control supervisor (officer). This officer is responsible for installation, maintenance, and operation of the airfield terminal traffic control and navigation facilities for the integration of tower and GCA operations. He is responsible to the detachment commander for control of air traffic of the airfield control zone and coordination with FOC.

(2) *Air traffic controllers (AR 611-201).*

- (a) Control terminal air traffic in the airfield control zone by means of radio or light signals.
- (b) Maintain records and log of the control tower to indicate clearances and information given to aircraft.
- (c) Operate radio equipment of the tower, accomplish operator maintenance, and maintain records pertaining to radio equipment.
- (d) Maintain and operate a plotting board indicating the position and altitude of aircraft operating under instrument flight conditions within the airfield control zone, including those holding patterns under control of the tower.

e. Employment.

- (1) The tower must be located to provide both visual and radio coverage of the airfield and its traffic patterns.
- (2) Provision must be made for close liaison and communication between the tower and—
 - (a) The GCA team.
 - (b) The FOC.

- (c) Crash and rescue personnel.
 - (d) The airfield operations office.
 - (e) The airfield service section.
- (3) A tower unit, TSW-1, is issued to house tower operations. In lieu of this, a highly mobile unit for tactical employment may be locally fabricated through use of a 2½-ton shop van truck, in which is mounted the radio equipment of the tower, and includes GCA teams and the GCA indicator. A shelter equipped with remote control units for the tower radios can be constructed over the top of the cab to permit adequate observational facilities and working space for an air traffic controller of the tower. The interior of the van may be utilized by GCA controllers.

16-21. Approach Control Team (GCA)

a. Mission. The approach control team provides ground controlled approach radar assistance for letdown and landing approach of aircraft operating under instrument flight conditions.

b. Organization. The team is authorized GCA radar operators and repairmen sufficient for continuous operation.

c. Equipment. The team is authorized a GCA radar set and UHF, VHF, and FM radios, with electrical generators.

d. Duties of Personnel.

- (1) *Approach control chief.* Supervises the GCA team and insures close integration and coordination between the GCA and tower. He must be fully conversant with the operation of all GCA facilities, including their maintenance and supply. He assists the supervisor in reconnaissance, selection, and installation of the GCA radar at the airfield. He is responsible for the operation and maintenance of all GCA equipment and the training duties of the approach control team.
- (2) *Approach control specialists (AR 611-201).* Operate the GCA radar set in accordance with established procedures. Their specific duties include—
 - (a) Coordinating with air traffic control team by means of surveillance or precision radar to complete the safe, expeditious landing of aircraft.

- (b) Monitoring instrument flight departures as to radar capabilities and time permit.
 - (c) Maintaining vigilant watch of adjacent area during periods of inactivity in local area.
 - (d) Checking readings of equipment meter for proper operating voltages.
 - (e) Alining and checking scope on known targets.
 - (f) Maintaining operational logs.
 - (g) Obtaining latest aviation weather information.
 - (h) Securing landing clearance from the control tower for aircraft under GCA control.
 - (i) Monitoring homing beacon procedures.
 - (j) Keeping all data current on associated radio facilities (location, frequencies, etc.).
 - (k) Assisting radar mechanic in radar tuneup and minor maintenance.
- (3) *Radar mechanic.*
- (a) Is responsible for optimum maintenance of radar equipment.
 - (b) Schedules and performs preventive maintenance.
 - (c) Maintains equipment performance log.
 - (d) Advises team chief on status of replacement parts and test equipment.
 - (e) Assists in siting of transmitting equipment and retooling of indicating panel.
 - (f) Performs preoperational tuneups, and checks communication equipment.
 - (g) Checks all cabling for deterioration and ground safety.
 - (h) Performs additional duties as radio repairman.
- (4) *Generator repairman.* The generator repairman is responsible for the maintenance of all electrical generators, mainly with the GCA team, since the equipment is considered most critical in event of power failure. His duties are as follows:
- (a) Maintains all power equipment of the detachment at an optimum level.
 - (b) Assures adequate fuel supply for power equipment.
 - (c) Performs preventive maintenance, assisted by other personnel designated as operators of power equipment.
 - (d) Supervises and instructs personnel designated as operators of power equipment.

- (e) Maintains equipment performance logs of power equipment.
- (f) Assists radar mechanics in physical changes of components.
- (g) Checks all fire extinguishers with power equipment for proper functioning.

e. Employment.

- (1) The approach control team (GCA) operates under the supervision of the air traffic control supervisor and in close coordination with the air traffic control team (tower).
- (2) The GCA radar may be employed for radar controlled approaches to, and departures from, the airfield.
- (3) The GCA radar may be employed to provide assistance to aircraft in distress outside the airfield control zone.
- (4) As an adjunct to the mobile tower—GCA unit discussed above, the GCA radar transmitter may be mounted in a 2-ton trailer which is equipped with levelling jacks. This makes the entire air traffic control facility at the airfield mobile. Within limitations of the radar set, it facilitates changing runways and landing direction for favorable alinement with the wind.

16-22. Airfield Service Section

a. Mission. The airfield service team provides airfield and heliport lighting, establishes and operates the terminal navigation facility, provides crash-fire service, accomplishes aircraft servicing and minor maintenance for transient aircraft, and performs maintenance of detachment vehicles.

b. Organization. The section is authorized aircraft mechanics, service crewmen, and crash-fire specialists.

c. Equipment. Equipment includes gasoline tank trucks, an Army aircraft crash-fire truck, runway and heliport light sets, and mechanics' tool sets. The L/MF radio homing beacon is provided by the flight operations section and installed and operated by the airfield service team.

d. Duties of Personnel.

- (1) *Airfield service chief.* The airfield service chief is a member of the airfield reconnaissance party. He plans and supervises the installation of the airfield lighting system and airfield service area. He directs and supervises the servicing and dispersal of transient aircraft using the

airfield, including emergency maintenance. He supervises and directs employment of the crash-rescue team on order of the detachment commander or, in his absence, the operations officer.

- (2) *Wheeled vehicle mechanic*. The wheeled vehicle mechanic performs organizational maintenance on detachment vehicles. He assists the aircraft mechanic in installation and maintenance of airfield lighting sets and assists the approach control team in movement and emplacement of GCA.
- (3) *Crewman (helicopter mechanic)*. The crewman installs and maintains the airfield lighting set. He assists the airfield service chief in supervision of aircraft servicing, aids in crash-rescue, and performs minor emergency aircraft maintenance.
- (4) *Crash-rescue personnel*. Crash-rescue personnel assist the airfield service chief, and operate and maintain crash-rescue operations under his direction.
- (5) *Crewman (POL specialist)*. This crewman operates and maintains POL vehicles and services transient aircraft under supervision of the aircraft mechanic.

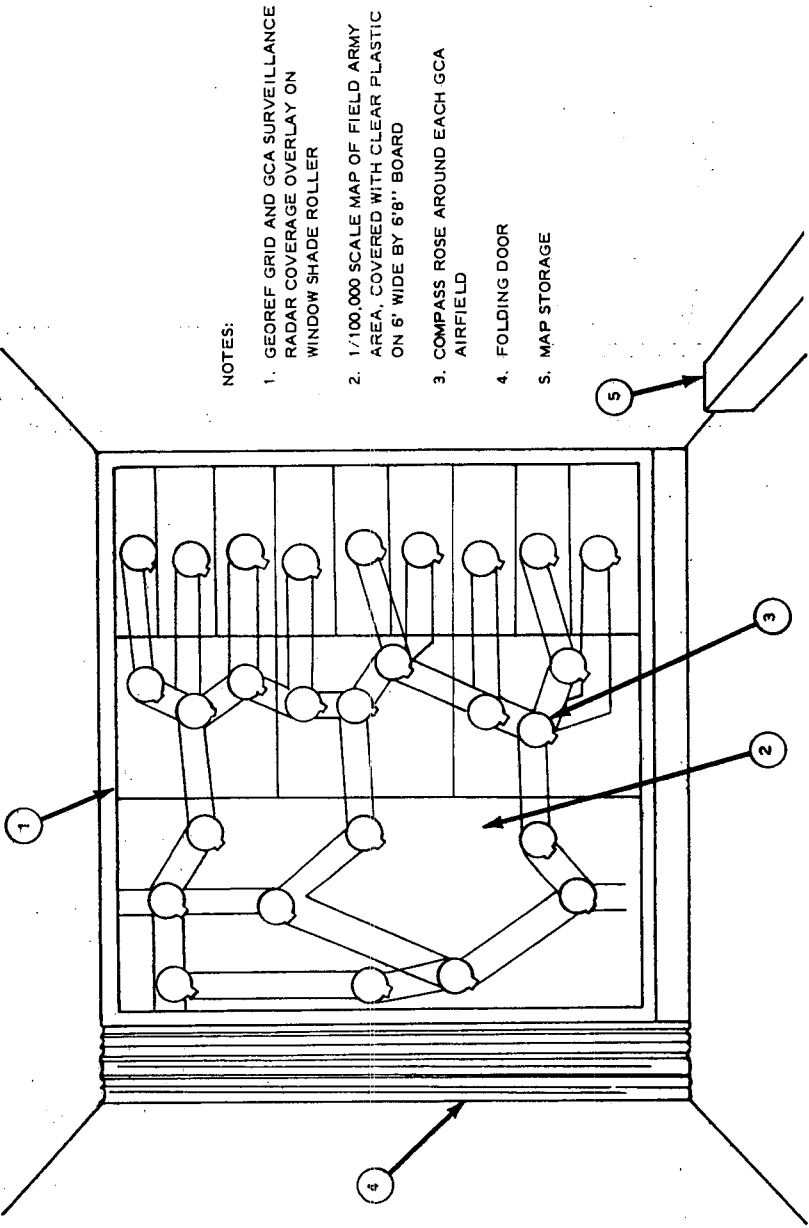
16-23. Flight Operations Center

a. Mission. The FOC performs the functions of air traffic control, identification warning, and in-flight assistance for the assigned area of responsibility.

b. Organization. Personnel assigned to the FOC include a minimum of 2 officers and 6 enlisted men organized into 2 teams to permit continuous 24-hour operation. Each team includes a flight operations control officer, an air traffic controller, an assistant air traffic controller, and an aircraft plotting board operator (who is also teletypewriter operator). Personnel for the FOC team are included in the flight operations section.

c. Equipment. The FOC may be equipped with a specially designed van which includes the necessary items of equipment. However, if the FOC van is not available, or if the FOC is established in a tent or other shelter, the following list of major items of equipment is required:

- (1) The aircraft plotting board (fig. 16-6) affords the FOC a continuous picture of the air traffic situation by aircraft symbols placed on the board. It must be of sufficient size to accommodate a map of the area of responsibility.
- (2) Air traffic control console (fig. 16-7).



NOTES:

- 1. GEOREF GRID AND GCA SURVEILLANCE RADAR COVERAGE OVERLAY ON WINDOW SHADE ROLLER
- 2. 1/100,000 SCALE MAP OF FIELD ARMY AREA, COVERED WITH CLEAR PLASTIC ON 6" WIDE BY 6'8" BOARD
- 3. COMPASS ROSE AROUND EACH GCA AIRFIELD
- 4. FOLDING DOOR
- 5. MAP STORAGE

Figure 16-6. Aircraft plotting board.

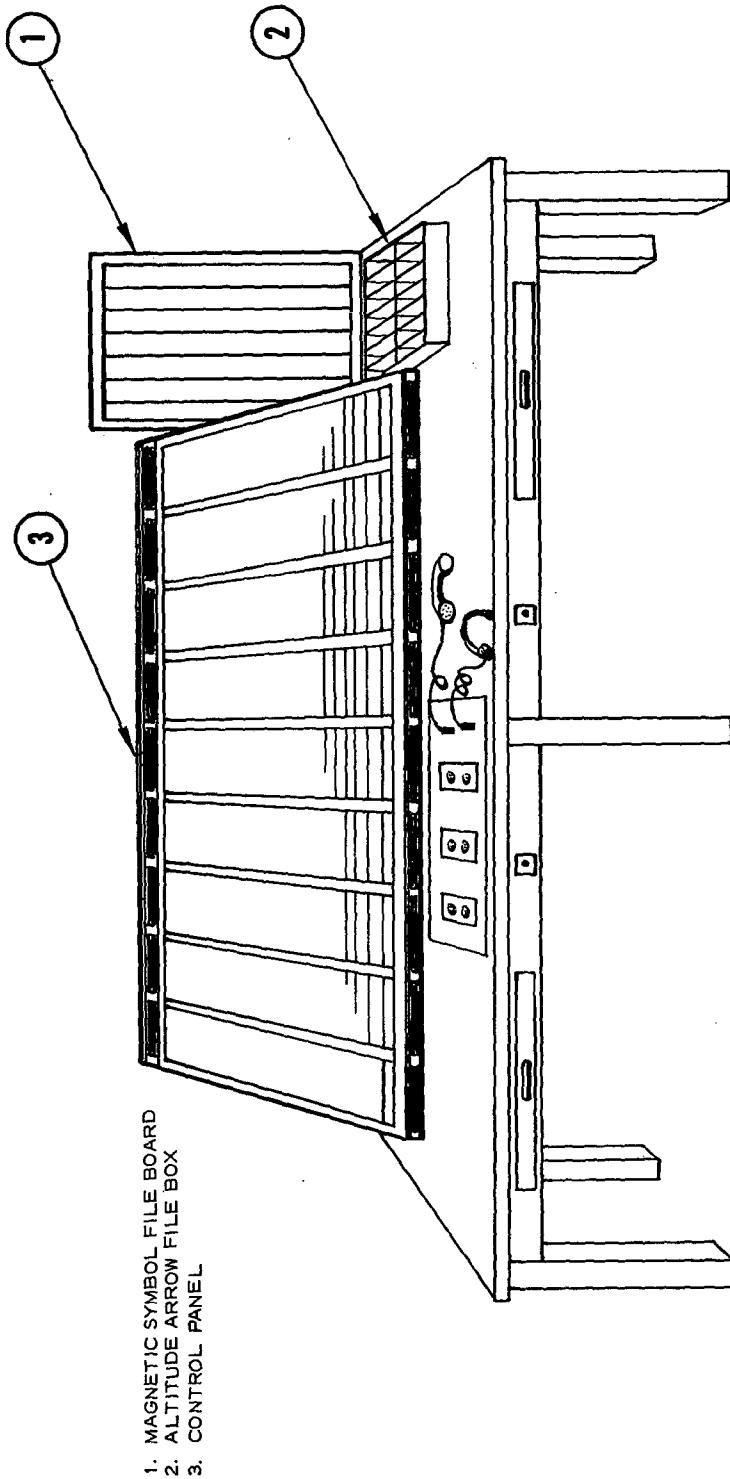


Figure 16-7. Air traffic control console.

- (3) UHF, VHF, FM, AM radio equipment.
- (4) Teletypewriters.
- (5) Electrical generators.
- (6) Telephone and switchboards.

d. Duties of Personnel.

- (1) *Flight operations center commander.* The flight operations center commander is the flight operations control officer for the headquarters to which assigned and represents the aviation officer in matters pertaining to air traffic control. His duties include—
 - (a) Responsibility for operation of the FOC.
 - (b) Supervising traffic and identification operations of Army aircraft in the zone and coordinating these operations with the Army air defense command post (AADCP) and other agencies.
 - (c) Providing information concerning aircraft operations to AADCP.
 - (d) Identification of aircraft and maintenance of data necessary to effect this identification.
 - (e) Providing AADCP with information of hostile air activity reported by in-flight aircraft.
 - (f) Disseminating hostile air warning to in-flight aircraft.
 - (g) Coordinating emergency navigation assistance required by aircraft, including assistance provided by other services.
 - (h) Providing vectoring data to aircraft, on request, by reference to the AADCP operations board or Air Force agencies.
 - (i) Direct supervision of operations performed in the FOC to include processing of flight traffic spacing, maintenance of traffic control console and aircraft plotting boards, disseminating navigation and weather information, communication, and the maintenance of necessary maps, journals, and reports.
- (2) *Air traffic controller (AR 611-201).* With his assistant, he accomplishes the communications and operational functions incident to the control of air traffic. Duties of the air traffic controller include—
 - (a) Providing information and assistance to the flight operations center commander in the performance of his duties.
 - (b) Assisting in the installation, operation, and maintenance of FOC communications.
 - (c) Issuing traffic clearances and other control messages.

- (d) Revising air traffic control estimates, as necessary, after a flight progress report has been posted.
 - (e) Maintaining "fix" postings in proper sequence on the traffic control console.
 - (f) Posting current expected approach time (ETA) on the flight progress strips.
 - (g) Removing flight progress strip-holders when information on the strips is no longer necessary for control.
 - (h) Keeping informed on current weather status.
 - (i) Giving in-flight assistance to aircraft.
 - (j) Receiving position reports via radio from in-flight aircraft.
- (3) *Assistant air traffic controller.* His duties include—
- (a) Receiving flight plans via phone from the requesting agency and properly posting on the flight clearance form and flight progress strips.
 - (b) Maintaining flight progress strip suspense file.
 - (c) Preparing strips for the reporting fixes.
 - (d) Transferring prepared strip-holder to the controller's position at appropriate fixes and times.
 - (e) Maintaining facility strips on designator card holders.
 - (f) Initial computing of aircraft groundspeed as required for control purposes.
 - (g) Removing and filing flight progress strips from holders which are no longer being used for control purposes.
- (4) *Aircraft plotting board operator (teletypewriter operator).* He is responsible for maintaining the aircraft plotting board, keeping the FOC informed as to the location of all in-flight aircraft during instrument flight conditions, and for the operation of the teletypewriters, when required. His duties include—
- (a) Computation of groundspeeds of aircraft being plotted.
 - (b) Monitoring the teletypewriters, answering calls, and sending messages as required.
 - (c) Relaying NOTAMS and weather sequences to airfields in the sector.
 - (d) Organizational maintenance of teletypewriters.

e. *Employment.*

- (1) The FOC is the primary agency of the Army air traffic control system and is established by the AOD. It is established one in each corps area, Army service area, and in the communications zone when required, and operates under the control of the aviation officer of the headquarters to which assigned. The FOC accomplishes

the planning, coordination, administration, and communication necessary for the continuous operation of the Army air traffic control and identification system. In its normal positioning, the FOC will be adjoined to, or placed in proximity to, the primary AADCP in assigned zone of responsibility.

- (2) Each FOC has a designated zone of responsibility. The FOC assigned to a corps is given responsibility for control of airborne aircraft within the area bounded by the corps rear and lateral boundaries, and forward of the line of contact in extension of the lateral boundaries, except for airfield control zones. Normally, field army FOC will control the air routes entering corps area from the army service area forward to the first navigational aid on these routes. The FOC located at the AADCP is responsible for the traffic control of all airborne aircraft within the area bounded by the Army rear and lateral boundaries, forward to the corps rear boundary, except airfield control zones and corps area air routes.
- (3) The FOC is a mobile unit containing necessary personnel and equipment to perform its assigned missions. It may operate from a specially designed van, or from a tent or building in which the necessary equipment has been installed.
- (4) Augmentation of the FOC may be required in case of a workload generated by heavy traffic conditions or by a large area of responsibility. Such augmentation should be accomplished by addition of a team, or teams, of three enlisted personnel with qualifications and duties as outlined in *d* above. When additional teams are utilized within the FOC, portions of the assigned area of responsibility may be assigned those teams.

16-24. Marches

The AOD is authorized adequate organic vehicles for transportation of organic personnel and equipment; however, loading and unloading of the GCA radar transmitter must be accomplished by a wrecker, which is not authorized. Acquisition of a wrecker may be cause for delay in movement. The mobile tower-GCA unit, with trailer-mounted GCA transmitter, as discussed in section III, renders the detachment entirely and independently mobile.

16-25. Assembly Areas

The assembly area of the AOD will be integrated within that of the unit to which it is attached.

16-26. Personnel

Normally, the AOD is attached to the headquarters and headquarters company and personnel administration is accomplished by that unit.

16-27. Logistics

The AOD is normally attached to the headquarters and headquarters company and logistical support is rendered by that unit.

16-28. Maintenance

The AOD is capable of performing first echelon maintenance of all equipment; second echelon maintenance of radio, radar, and electrical generating equipment; and limited third and fourth echelon maintenance of the GCA radar (certain tests and operations performed during siting and installation fall within this category). Second echelon maintenance of vehicles is accomplished by the unit to which the AOD is attached.

16-29. Individual Training

Unit mission specialist (air traffic controllers, crash-fire fighters, aircraft mechanics) and supporting maintenance specialists (radar mechanics and radio repairmen) must be trained in their specialties prior to assignment to the AOD. Individual training conducted by the detachment is prescribed in ATP 1-207.

16-30. Section Training

Each team and section within the AOD will be trained to perform its mission independently and as an integrated unit. This will permit a greater degree of flexibility in the employment of the AOD, depending upon the facilities desired or required by the situation.

16-31. Training With Supported Units

Air traffic control personnel must be given appropriate training to effect close coordination with Air Force and Air Defense activities.

APPENDIX I

REFERENCES

AR 95-series	Aviation
AR 220-60	Battalions, Battle Groups, Squadrons; General Provisions.
AR 220-70	Companies; General Provisions
AR 320-5	Dictionary of United States Army Terms
AR 320-50	Authorized Abbreviations and Brevity Codes
AR 611-201	Manual of Enlisted Military Occupational Specialties.
AR 735-35	Supply Procedures for TOE Units, Organizations, and Non-TOE Activities.
SR 750-series	Maintenance of Supplies and Equipment
DA Pam 108-1	Index of Army Motion Pictures, Film Strips, Slides, and Phono-recordings.
DA Pam 310-series.	Military Publications Indexes
FM 1-100	Army Aviation
FM 5-20	Camouflage, Basic Principles and Field Camouflage.
FM 6-20	Field Artillery Tactics and Techniques
FM 6-21	Division Artillery, Infantry Division
FM 6-40	Field Artillery Gunnery
FM 6-101	The Field Artillery Battalion
FM 7-24	Communications in Infantry and Airborne Divisions.
FM 7-100	The Infantry Division
FM 11-22	Signal Operations in the Corps and Army
FM 11-40	Signal Photography
FM 17-1	Armor Operations, Small Units
FM 17-35	Armored Cavalry Units, Armored and Infantry Division.
FM 17-70	Signal Communications in the Armored Division.
FM 17-95	The Armored Cavalry Regiment and the Armored Cavalry Reconnaissance Battalion.
FM 19-15	Civil Disturbances and Disasters
FM 21-5	Military Training
FM 21-6	Techniques of Military Instruction

FM 1-5

App I

FM 21-30	Military Symbols
FM 21-40	Small Unit Procedures in Atomic, Biological and Chemical Warfare.
FM 24-18	Field Radio Techniques
FM 24-20	Field Wire Techniques
FM 25-10	Motor Transportation Operations
FM 30-5	Combat Intelligence
FM 30-30	Aircraft Recognition Manual
FM 57-35	Army Transport Aviation, Combat Operations
FM 100-5	Field Service Regulations, Operations
FM 100-10	Field Service Regulations, Administration
FM 101-5	Staff Officers Field Manual, Staff Organization and Procedure.
FM 101-10	Staff Officers Field Manual, Organizations, Technical and Logistical Data.
SB 1-series	Aviation
TM 1-series	Aviation
TM 1-1-series	Army Aircraft Handbooks
TB AVN-series	Aviation

APPENDIX II

STANDING OPERATING PROCEDURES

Example. Transport Aircraft Battalion SOP.

CLASSIFICATION

Copy _____
111th Trans Bn (TT)
APO 111 U.S. Army
11 June 58

1. Application

This SOP is applicable to all assigned and/or attached units. SOP's of subordinate units will be based on, and conform to, this SOP.

2. Intelligence

a. Essential Elements of Information. Recommended EEI will be referred by staff sections to operations and intelligence section.

b. Reconnaissance and Observation. Requests for preplanned visual and photographic reconnaissance missions will be submitted to operations and intelligence section by 1800 daily.

c. Prisoners of War, Captured Documents and Materiel.

- (1) Capturing unit will accomplish search and rapid evacuation of POW's. They will be segregated by nationality, sex, grade, agents, civilians, and recovered deserters.
- (2) POW's will be briefly interrogated by battalion S2 and immediately processed to next higher headquarters.
- (3) POW's whose interrogation will be of special interest to staff sections of higher headquarters will be reported to staff section concerned.
- (4) Documents found on captured enemy personnel will be properly tagged and these forwarded to the next higher headquarters with POW.

d. Counterintelligence.

- (1) *Security discipline.* Careful dispersion, concealment, and/or camouflage of vehicles and equipment within the command post area will be continually emphasized. Daily inspections will be made by all staff sections. Paper, trash, laundry, and bright objects will not be left exposed in occupied areas.

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(2) *Classified documents.*

- (a) Classified documents, and other documents of intelligence value to the enemy, will not be taken forward of battalion headquarters.
- (b) Military personnel in the front lines, on reconnaissance, or on missions over the enemy lines, will not have any documents or personal papers in their possession, except those absolutely necessary for performance of their mission.
- (c) Information concerning compromise or possible compromise of any classified or registered document will be reported to S2 by the most expeditious means.

(3) *Correspondents and visitors.*

- (a) Information for release to news media must receive prior clearance by PIO and then released only to newspaper correspondents, photographers, or news commentators duly accredited by Department of Army. All material written by these individuals must be submitted for clearance to the PIO of next higher headquarters.
 - (b) Visitors itineraries will be cleared through S2 or G2 of next higher headquarters.
- (4) *Countersign.* Countersign, both primary and alternate, is issued to cover a 24-hour period beginning 1200 hours daily. Any person aware of compromise or possible compromise of countersign will immediately notify S2.
- (5) *Censorship.* Unit officers censor mail in accordance with current directives.

3. Operations

a. Procedure. Procedure for receiving, evaluating, assigning, and performing transport missions is as follows:

- (1) All transport missions assigned to the battalion by higher headquarters will be further assigned to elements of battalion by S3.
- (2) All missions will be catalogued into one of the following categories for control purposes:
 - (a) Missions requiring a major effort of the battalion.
 - (b) Missions requiring more than total effort of a single company but less than major effort of the battalion.
 - (c) Missions requiring total effort of a single company or less.

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- (3) Major battalion effort, and certain other missions, will be controlled directly by battalion commander, and detailed battalion operations orders will be issued.
- (4) Missions requiring more than total effort of a single company, but less than major effort of battalion, will normally be performed in the following manner:
 - (a) A company will be selected by battalion commander to perform mission. Company commander will be responsible for mission.
 - (b) The battalion will attach units as necessary to selected company to insure adequate strength to perform mission.
 - (c) Upon completion of mission, attached units will revert to parent organizations.
- (5) Missions requiring total company effort or less will, whenever possible, be given to a single company. The company commander will be responsible for coordinating, planning, and performing the mission under the guidance of S3.

b. Notification. Units will be initially notified of an impending operational requirement by any one, or combination of, the following means:

- (1) *Warning order.* The warning order is issued in advance. It designates the units to participate and gives general requirements of the mission. This type of notification, when followed by detailed operations orders, permits maximum planning and coordination between supported unit, supporting unit, and directing headquarters.
- (2) *Operations order.* The operations order is issued to acquaint the unit with the complete requirement, so that it can complete the planning with a minimum of advanced liaison.
- (3) *Message by telephone or verbal order.* This type of message is normally the type received when mission is of relatively small size and complex and detailed advanced planning is not required.

c. Battalion Action Upon Receiving Tactical Mission—Major Battalion Effort.

- (1) Upon notification that the battalion is to be used in support of a tactical operation, S3 will—

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- (a) Alert units involved, notifying them of the general nature of the mission, estimated time of departure, anticipated aircraft and support requirements, and obtain liaison officers from units concerned.
 - (b) Dispatch a liaison party to commander of tactical unit concerned. Battalion liaison officer will act as technical advisor to supported unit commander for joint planning and execution of the mission. All required orders, plans, and information obtained from supported unit will be relayed to the battalion commander without delay.
- (2) The battalion commander, his staff, and attached aviation unit commanders will consider the following when advising the ground commander during the development of the tactical plan:
- (a) Operation time schedule.
 - (b) Type and duration of mission.
 - (c) Number of aircraft required (ANNEXES A and B).
 - (d) Detailed weather information.
 - (e) Tactical air and fire support.
 - (f) Protective measures, friendly nuclear employment (ANNEX E).
 - (g) Enemy ground and air capabilities.
 - (h) Terrain in loading areas and landing zones.
 - (i) Aerial photographs of landing sites.
 - (j) Map coverage.
 - (k) Communications to include communications between aircraft supported unit, and pathfinder unit, if applicable.
 - (l) Routes, altitudes, and formation.
 - (m) Alternate and emergency plans.
 - (n) Refueling points and POL requirements.
- (3) Upon completion of planning, the battalion commander may issue an operations order to his command, if required to supplement the operations order of the tactical unit or force commander.

d. Company Action Upon Receiving Tactical Mission—Major Battalion Effort.

- (1) Upon notification from battalion that the company will support a tactical operation, the company commander will dispatch a liaison officer and party to commander of tactical unit concerned. This party will accompany

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and assist battalion liaison party in planning and organizing the marshalling zone or loading areas (ANNEX A). All orders and information received will be relayed back to the company commander so that he can proceed with preliminary planning.

- (2) Upon receipt of the operation order, the company commander and his staff will prepare and disseminate necessary instructions to members of the company. In addition to the instructions in the operations order they will include the following:
 - (a) Assignment of aircraft.
 - (b) Assignment of pilots and copilots.
 - (c) Replacement pilots and aircraft.
 - (d) Individual weapons to be carried.
 - (e) Security of information and equipment.
 - (f) Safety factors.
 - (g) Designation of flight leaders.
 - (h) Location of refueling facilities and instructions for using them.
 - (i) Schedule of aircraft movement to marshalling or loading area.
 - (j) Communications.
- (3) Upon completion of the mission, the company commander will submit an after-action report to the battalion commander. This report will include a review of the mission, problems encountered, unusual incidents, and recommendations or suggestions.

e. Battalion Action Upon Receiving Administrative Mission. The battalion staff coordinates planning and allocation of the mission to the aviation companies. The following will be considered in planning:

- (1) Loading areas at origin and designation.
- (2) Contact party at origin and designation.
- (3) Duration of mission.
- (4) Type, weight, and dimensions of cargo, or personnel to be transported.
- (5) Number of aircraft required.
- (6) Return traffic.
- (7) Terrain analysis.
- (8) Weather.
- (9) Maps, charts, and navigational aids.

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- (10) Communications.
- (11) Alternate or emergency plans (ANNEX C).
- (12) Special equipment.

f. Company Action Upon Receiving Administrative Mission.

- (1) Upon receipt of the mission from battalion, the company commander and his operations officer will examine all aspects of the planning considered by battalion and then prepare and disseminate to members of the command the instructions needed to carry out the mission. These instructions will include—
 - (a) Assignment of aircraft and flight leaders.
 - (b) Assignment of pilots and copilots.
 - (c) Navigational aids.
 - (d) Briefing of pilots.
 - (e) Contact and directing personnel at the landing sites.
 - (f) Safety factors.
 - (g) Communications.
- (2) After receiving transport mission order, the company will inform the battalion air traffic control office as soon as they can be determined, the following time factors:
 - (a) Expected time of departure.
 - (b) Expected time en route.
 - (c) Expected time of completion of mission.
 - (d) Actual time of departure.
 - (e) Actual time of completion of mission.

4. Command Posts

a. General. The S3 is charged with planning and coordinating all moves within the battalion. The following instructions cover the movement of the battalion headquarters under tactical conditions.

b. Warning Order. Upon receipt of warning order, the battalion commander will alert the battalion S3 who in turn notifies the headquarters company commander of assigned or attached units.

c. Quartering Party. Consists of headquarters company commander or S1, S2, and S3 representatives, communications officer or representative, required EM of communications section, and necessary security personnel. Party moves to designated area, marks route at critical points, selects exact CP site, lays out CP, and begins installation of communications. Situation permitting, priority is given to location affording best communications.

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d. Displacement.

- (1) When installation is completed by quartering party, the first echelon (battalion commander plus approximately half of each staff section) moves forward, leaving old CP operating under supervision of executive officer.
- (2) When first echelon is established in new location, the old CP closes and new CP opens simultaneously. Remainder of CP personnel move to new location.

e. Motor March.

- (1) Rates: Day—25 mph (max 35); night—10 mph (max 15) (blackout).
- (2) Halts: 10 minutes after first hour; 10 minutes after each 2 hours thereafter.
- (3) Organization: 2 serials.
 - (a) Command vehicles.
 - (b) Troop vehicles.
 - (c) Mess vehicles.
 - (d) Supply vehicles.
 - (e) Assigned or attached medical vehicles.
 - (f) Fire, crash, and rescue vehicles.
 - (g) POL vehicles.
 - (h) Maintenance vehicles.
- (4) Attachments: Aid men to sections.
- (5) Time intervals: Between serials—5 minutes.
- (6) Formations: Day—open column; 100 yards between vehicles. Night—closed column.
- (7) Communications: Within convoy—radio, visual signals, or control vehicles.
- (8) Command: The convoy will be under command of headquarters company commander.
- (9) Elements will report closing into new area.

f. Arrival at New CP.

- (1) Upon completion of motor march, vehicles will be unloaded and released to motor officer.
- (2) Each section is responsible for erecting own tentage.
- (3) Maximum effort is directed toward camouflage of vehicles and equipment. Both natural and artificial material will be used.
- (4) Foxholes or slit trenches will be dug by each individual near his section area.

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g. Notification. S3 notifies subordinate and higher headquarters of change in CP location.

h. Liaison and Communications.

- (1) *Liaison.* S3 will establish liaison with supported unit as soon as possible after arrival in the area.
- (2) *Communications.* Communications with supported and supporting units, and communications within the battalion, will be established as soon as possible after arrival in the area.

i. Security.

- (1) Headquarters company commander has staff responsibility for the internal security and local defense of the CP. Coordination of defense plans and local warning systems will be established with other units in the area (ANNEXES D AND F).
- (2) Each section will appoint an officer or noncommissioned officer as coordinator and supervisor of section personnel assigned defense duties. Sections will furnish personnel to man security posts and defensive positions.
- (3) All visitors to the area must show proper identification prior to entering the CP area.
- (4) Indigenous personnel will be carefully screened.

j. War Room. S3 will establish a war room to provide a single location within the headquarters where the commander and staff officers can be assembled for briefings.

5. Logistics

a. Maintenance.

- (1) Battalion maintenance officer will maintain a current record of locations of all Transportation aircraft maintenance and supply installations.
- (2) Maximum effort will be made to perform maintenance at night. This will afford maximum utilization of aircraft and vehicles during daylight hours.

b. Supply.

- (1) *Technical services.* S4 will maintain a current record of location of all technical service supply installations.
- (2) *Issue and turn-in.* Issue and turn-in to each technical service will be as scheduled by the various technical services and as directed by the S4.

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- (3) *Class I supplies.*
 - (a) Ration cycle will be established by S4 as directed by higher headquarters.
 - (b) Each mess section will have on hand a minimum of one combat type ration as a reserve.
 - (c) Informal ration requests from subordinate units will be submitted to S4 by 1900 daily.
- (4) *Class II supplies.*
 - (a) Informal requisitions will be submitted by subordinate units.
 - (b) Certificate of combat loss or destruction supporting requisition for replacement items will be submitted as soon as practicable thereafter.
- (5) *Class III supplies.* Requisitioned and received by individual units as required.
- (6) *Class IV supplies.* Requisitions will include justification.
- (7) *Class V supplies.* Units will reflect shortages in basic load to the S4.
- (8) *Water.* Water will be procured from approved Engineer water points only.

6. Personnel

a. Personnel daily summary will be submitted by assigned or attached units as of 1800 hours daily to reach battalion headquarters by 2100 hours. S1 will be notified immediately of casualties and nonbattle losses as soon as incurred. See FM 101-5.

- (1) Periodic personnel report will be submitted by all assigned or attached units. Report will be prepared as directed (ANNEX G).
- (2) Morning reports will be submitted no later than 0830 hours daily.

b. Replacements.

- (1) Replacement requirements, present and anticipated, will be requisitioned by the battalion personnel section in accordance with directives of higher headquarters.
- (2) Battalion S1 welcomes, orients, and integrates replacements into the battalion.
- (3) Reception, orientation, rations, and quarters will be provided before reporting to sections for duty.

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c. Discipline, Law, and Order.

- (1) AWOL's and stragglers will be processed to parent unit along with report of circumstances leading to their apprehension.
- (2) A summary court will be appointed by the battalion commander to process appropriate cases.

d. Prisoners of War.

- (1) If possible, POW's will be interrogated briefly by battalion S2 and immediately processed to the next higher echelon of command.
- (2) Wounded POW's will be evacuated through medical channels.
- (3) Rights, privileges, obligations, and treatment of POW's will be as prescribed in FM 27-10 and TM 19-500.

e. Recovery and Disposition.

- (1) Friendly and enemy dead will be reported to higher headquarters immediately.
- (2) Personal effects remain with the body when evacuated to higher headquarters.

f. Morale and Personnel Services.

- (1) *Leaves.* Leave and rest area quotas will be filled when situation permits.
- (2) *Postal services.*
 - (a) During combat, incoming first-class mail is delivered with class I supplies. Parcel post delivered when situation permits.
 - (b) Outgoing mail is forwarded without delay after censorship.
- (3) *Finance service.* Troops will be paid as scheduled when the tactical situation permits.

g. Civil Affairs—Military Government.

- (1) Civilians taken into custody will be turned over to the Military Police.
- (2) Food, clothing, or other equipment will not be given to civilians.

7. Signal

a. Wire and Radio Nets.

- (1) Battalion communications section installs, operates, and maintains radio and wire nets at all echelons of battalion

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headquarters and to subordinate units as directed by the communications officer.

- (2) Subordinate units install, operate, and maintain wire and radio nets as directed by the unit communications officer.
- (3) Responsibility for lateral communications between subordinate units is from left to right.
- (4) Battalion communications section establishes battalion radio site near battalion CP and provides wire circuits from radio site to communications center for each radio net.
- (5) Enter higher echelon nets as directed.

b. Communications Center.

- (1) Battalion communications section operates a communications center for battalion headquarters.
- (2) Cryptographic operations will be under direct control of communications officer.
- (3) The communications center will maintain logs, files, and records in accordance with FM 24-16.
- (4) All classified messages will be enciphered with systems provided.
- (5) One copy of outgoing messages, with time sent indicated thereon, will be returned to the originator immediately after transmission.
- (6) All outgoing messages will be prepared on field message form in two copies and delivered to the communications center.
- (7) Communications section moves in echelons to conform with movement of echelons of battalion headquarters.

c. Records and Reports. Attached units submit line route maps, circuit diagrams, and radio net diagrams to battalion communications office upon completion of initial installation or any change in trunking circuits. Changes in circuit status will be reported immediately.

d. Communications Security and Intelligence.

- (1) Authenticate all radio messages.
- (2) Operate all communications means in accordance with current security measures.
- (3) Report all violations of physical or transmission security immediately to S2 and battalion communications officer.

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App II

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Annexes: A Sample Loading Plan for Infantry Rifle Company (Omitted).
B Sample Loading Plan for Artillery Battery (Omitted).
C Emergency Medical Evacuation Plan (Omitted).
D Defense Against Nuclear Attack (Omitted).
E Protective Measures, Friendly Nuclear Employment (Omitted).
F CBR Defense (Omitted).
G Reports (Omitted).

Distr: A

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